MOTOR AGE

Vol. X No. 1 CHICAGO [illegible], 1906 Ten Cents a Copy

[illegible] TO [illegible] IN DARRACQ [illegible]

THE 1906 VANDERBILT CUP RACE IN BRIEF

Wagner in a Darracq captured the race in 4 hours 50 minutes 10 2-5 seconds.

Lancia in a Fiat was second and Duray in a de Dietrich was third.

Le Blon in a Thomas led the American team. Tracy in a Locomobile made the fastest lap, the fifth, in 26:21; Tracy second American.

AMONG THE PEOPLE

Crowd of half million people believed to have seen the race.

Thousands of automobiles lined the 29-mile course.

Railroads were taxed to take care of those who did not own cars.

Hotels and private houses crowded; Long Islanders reaped rich harvest.

Night spent on the course by hundreds.

Heavy fog led to a number of accidents.

Night before spent without sleep.

Thousands of people started for scene of the race from 12 to 14 hours ahead of time.

STATISTICS OF 1906 VANDERBILT CUP RACE

Finish	Driver	Car No.	Make	Laps Made	Time H.M.S.	Fastest Laps M.S.
1	Wagner	10	Darracq	10	4:50:10	27:22
2	Lancia	4	Fiat	10	4:53:28	28:07
3	Duray	18	de Dietrich	10	4:53:44	27:52
4	Clement	15	Bayard	10	5:01:59	28:10
5	Jenetzy	3	Mercedes	10	5:04:38	28:05
6	Nazzaro	8	Fiat	9	4:52:58	27:26
7	Cagno	12	Itala	9	5:06:28	30:59
8	Le Blon	1	Thomas	9	5:12:26	28:38
9	Heath	2	Panhard	8	4:47:10	33:33
10	Tracy	9	Locomobile	8	4:52:58	*26:21
11	Luttgen	7	Mercedes	8	4:55:51	30:18
12	Fabry	19	Itala	7	4:20:57	33:49
13	Christie	17	Christie	7	4:38:56	33:39
14	Haynes	14	Haynes	7	4:41:28	34:15
15	Shepard	6	Hotchkiss	6	3:09:37	†30:23
16	Lawwell	5	Frayer-Miller	4	3:10:24	33:34
17	Wellschott	16	Fiat	0	.....	.....

*Fastest lap of race.
†Made time twice, fourth and sixth laps.

ALONG THE COURSE

Course wet from rain, which caused considerable trouble.

Americans suffered delay all through the race through tire troubles.

Drivers handicapped by people blocking the road in many places.

Hairpin turn and Krug's most interesting spots.

Spectator killed by Shepard and two or three others slightly hurt.

Race was stopped by the referee after five men had finished.

Deputies of little use on course.

Start delayed 15 minutes, because of fog, to avoid accidents to contestants.

ANOTHER VICTORY ACHIEVED BY FRANCE

SOCIETY FOLK IN VANDERBILT BOX—SCENE AFTER THE RACE

SCENE OF SHEPARD'S ACCIDENT NEAR KRUG'S CORNER.

NEW YORK, Oct. 7—Louis Wagner, driving a 100-horsepower Darracq, yesterday won for France the Vanderbilt cup after the grandest race and in the presence of the most stupendous assemblage of people in the whole history of the world's sport.

It was the third successive victory for French cars in the race and a repetition of last year's winning of the contest by a Darracq machine.

Wagner covered 297 miles of slippery and sinuous road in 4 hours 50 minutes 10⅘ seconds, through narrow lanes of hundreds of thousands of spectators, who had at the finish broken all barriers and swarmed on the course.

The winner's average was 61.43 miles an hour, as against 61.49 scored by Hemery last year and 52.2 made by Heath on the occasion of the initial race, which was divided into controls.

The fastest lap in the race, 26 minutes 20⅘ seconds, was made by an American driver and car, Joe Tracy and the Locomobile, in the fifth round. This shows a rate of 53.22 seconds to the mile and 65 miles to the hour. It also indicates the speed possibilities and winning chances of this entry had the car not been held back by eight punctures and its driver unnerved by hitting a boy and breaking his leg as he was continuing his swift pursuit of the leaders during the succeeding round. The next fastest, 27 minutes 23 seconds, was credited to Wagner on his sixth lap.

Wagner, when in a lead of some 6 minutes on the last lap, sustained a puncture and was beaten to the tape by Lancia, but defeated the Italian by 3 minutes 18⅘ seconds elapsed time.

Right at the heels of Lancia, to be exact, but 16 seconds behind him, came a second Frenchman, Duray, in a de Detrich, the winner of the Ardennes circuit.

There was a gap of 8 minutes 6 seconds and then young Albert Clement, well remembered for his close running up of Heath in the first Vanderbilt race, tore by and beat Jenatzy, the German, for the fourth place.

The quintet named, made up of three Frenchmen, an Italian and a German, alone had completed the full ten rounds when the race was called.

Of the other twelve of the seventeen starters, however, ten were still running and setting a fast pace.

This record of survivorship is unparalleled in the history of automobile road racing the world over. Think of it! Of the seventeen starters all but two completed half the journey and, in fact, six rounds aggregating 198.2 miles. There were fourteen to finish 207.9 miles, sixteen to complete 237.6 miles, while eight had made nine laps when the race was called. Two more, Le Blon and Cagno, actually completed 267.3 miles, but their times were not taken by the officials.

Shepard, of the French team, had retired after six laps with a broken crankshaft and Weillschott, of Italy, had burst through a fence and plunged down an embankment in the first round rather than go into the crowd.

France, the victor, finished first, third, fourth, ninth and fifteenth.

Italy was second, her cars being second, sixth, twelfth and seventeenth.

Germany won the third place, her two cars gaining fifth and eleventh positions in the line. Her third entrant, Foxhall P. Keene, did not start, having broken the cylinders of his Mercedes in practice 6 days before and being unable to secure others to replace them.

America, though all her five cars survived and she had won the honor of the fastest lap, was fourth in eighth, tenth, thirteenth and sixteenth positions, with the Thomas, driven by the imported Le Blon, finishing at the head of the outfit.

The story of the race is easily told. The winner took the lead the very first lap, which he made in 28.26, and maintained it to the end. Wagner started in tenth place, but so close and fierce was the pursuit of him that he did not get to the head of the procession until the ninth round. A puncture in the last round let Lancia over the line ahead of him in order.

The race itself as a contest was the closest and most wonderful in the annals of the motor-racing game. Never before was so fierce a fight waged for the leadership having so many within easy reach of the premier position. It was for a tire puncture, or a slight hitch in machinery, to decide the outcome. After the second round the quintet which, at the end of the race occupied the first five places, had the battle to themselves, with Shepard a close pursuer in sixth place for six laps until a broken crankshaft put him out of the running. While Wagner was always in the lead, with Lancia as his runner-up from the fourth round to the end, Duray and Jenatzy were always at the Italian's heels, alternating in the chase, with Clement invariably a close fifth. When this quintet bunched in the third round but 5 minutes separated the first man from the fifth. This narrow margin was increased to but 14 minutes at the end of the 297-mile run, truly a wonderful blanket finish for a long distance road race.

The runners-up to the winner were: First round, Jenatzy and Duray; second, Duray and Lancia; third, Duray and Lancia; fourth, Lancia and Jenatzy; fifth, Lancia and Duray; sixth, Lancia and Duray; seventh, Lancia and Duray in a dead heat; eighth, Lancia and Jenatzy; and ninth, Lancia and Duray.

That ever so fast a rate of speed at 61.4 miles an hour was attained by the winner is remarkable. In the first place, there had been a heavy rain during Thursday night and cloudy condi-

tions during Friday, followed by a very damp fog the night before, which lasted up to the very hour of the start and, in fact, caused its postponement to 6:15, left the course slippery. Rain at intervals during the first half of the race made the going worse yet. Add to this the fact that the preliminary practice had cut up the corners and turns badly and one gets an idea of the obstacles to top speed the course itself offered.

The slippery surface of the route traveled, however, was but an insignificant impediment to unrestricted speed as compared with the menace of the thousands that were massed at the turns and at all times were straggling out on the road along unguarded stretches. Add to all this the mobbing of the home-stretch on the last lap, wherein the wire fences were broken down near the finish, leaving but a narrow lane only open for the racers. So flagrant and perilous was the crowding on the course from the very start that Tracy actually stopped at the end of the first lap to complain to Referee Vanderbilt, who telephoned to all the stations that the race would be called off if the people did not keep off the road.

This crowding on the course and reckless running across it brought with it a fatality at the hand of one of the racers and also a serious injury by another. It was a marvel that there were not more under the conditions. Just after Elliott F. Shepard had rounded Krug's Corner, where the crowd was the largest and most uncontrollable, and had crossed the railroad tracks on the Jericho pike a hundred yards beyond, a man, Curt F. Gruner, of Passaic, N. J., started across the road to where a crowd had gathered to witness Lawwell repair a tire. The crowd had left but a narrow passage. Shepard had no chance to avoid the reckless man, and struck and killed him.

On his sixth round as Tracy was making the turn at East Norwich his car skidded into the encircling crowd and struck a boy, Ralph Baldwin, of Norwich, Conn., and broke his leg.

Dr. Weillschott, too, hit a boy, when his car dashed over an embankment at Manhasset in order to avoid the crowd. The boy was not, however, seriously injured.

Small and insignificant as was this list of casualties luckily was as compared with the risks that were incurred by the magnitude and recklessness of the crowds and the impossibility of adequately policing and protecting the course by the 800 deputies employed and the wire fence barriers erected at the finish and at the turns, where the greatest congestion was expected and realized, which were finally cut and torn down by the mobs, heeding not the entreaties and brooking not the restraint of the officials and deputies, it is a fact evident to the thoughtful that Nassau county can never again be the scene of another Vanderbilt race, unless some law can be passed or found whereby the course can and shall be guarded by state or national soldiers.

The proximity and accessibility of the course to such an enormous population center as New York, where the public desire to see the contest has become so great that literally hundreds of thousands have been proved by yesterday's experience to be ready to swoop down on the track and recklessly overrun it, would seem to make the use of the Nassau county circuit again impossible.

This view of the situation was taken at the meeting of the commission, held at the Garden City hotel last night, and frankly admitted by Chairman Thompson.

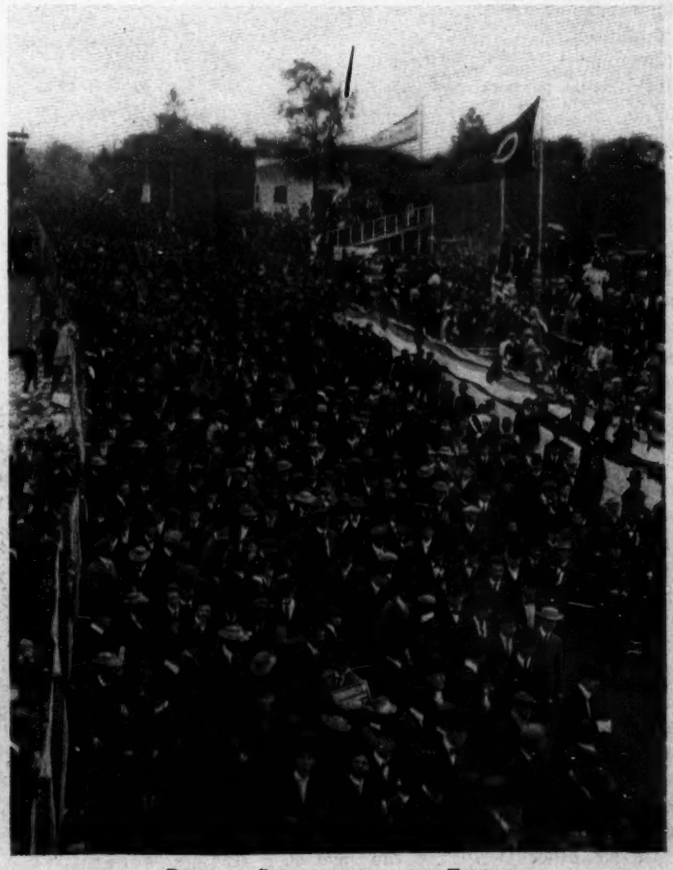
"We have spent thousands of dollars in the employment of deputies," said the chairman, "and in the erection of barriers at the danger points, but they have proved of no avail against the invasion and recklessness of thousands of crazy spectators, who heeded not the warnings of the deputies and cut down the wire fences with nippers. If we would hold another race we will either have to move the course down to a more inaccessible part of Long Island or to some other distant point not so easily or quickly reached by railroad, or land will have to be bought outright and an autodrome erected big enough for the race, which can at the same time be fenced in and protected."

In view of the enormous patronage a race over an enclosed course, where gate money could be charged, would have, such an enterprise might be practical from a financial standpoint.

It is early yet, however, to discuss the ways and means for the next race. France, in view of the failure of her grand prix, may wish to run the next race on her own soil, though the Automobile Club of France having withdrawn all recognition of the contest and the cup this year, having so been won by an individual rather than a club, it is a question whether France would have any right to demand the holding of the next race at home. When and how the next race can and shall be run will doubtless furnish discussion and argument for many months to come.

When one reckons the number of contesting nations, the world-wide fame of the drivers and the vastness of the concourse that gathered to witness it, the Vanderbilt cup race of 1906 can truthfully be set down as the greatest event in the whole history of automobiling to date and, further than that, in the entire annals of modern sport. Figure by comparison the 50,000 that have attended an American Derby or a Suburban, or the paltry 30,000 that have filled the stands at a Chicago-Michigan or Yale-Princeton football match, and these hitherto greatest of American sporting attractions sink into insignificance. Even the hundred thousand that have watched the great college boat races or have perhaps been packed upon the entire New York excursion fleet at a Queen's cup yachting contest, if free-for-all sporting events are to be used for comparison, and still the attend-

CROWD AT THE MANHASSET TURN



RUSH OF SPECTATORS AT THE FINISH

FACTS ABOUT EACH OF THE VANDERBILT CUP CONTESTANTS BROUGHT

	Started	1st Round 29.7 miles	2d Round 59.42 miles	3d Round 89.13 miles	4th Round 118.84 miles	5th Round 148.52 miles	6th Round 178.26 miles	7th Round 207.97 miles	8th Round 236.67 miles	9th Round 269.89 miles	10th Round 297.1 miles
1—THOMAS—Lebion	6:15										
Clock time		7:12:32⅘	7:44:15⅗	8:15:02⅘	8:45:09	9:15:42	9:54:20⅗	10:25:16⅕	10:56:05⅘	11:27:26⅖	
Total elapsed time			89:15⅗	120:02⅘	150:09	180:42	219:20⅗	250:16⅕	281:05⅘	312:26⅖	
Miles per hour—total			30.94	44.56	47.48	49.32	48.45	49.87	50.73	51.35	
Elapsed time—round		57:32⅘	31:43	30:46⅘	30:07	30:33	38:38⅘	30:55⅘	30:49⅘	31:20⅘	
Miles per hour—round		30.98	56.20	57.91	59.17	58.35	46.12	57.63	57.74	56.89	
Position in race		16	15	15	12	13	11	9	8	8	8
Passed stand		15	29	45	59	71	91	103	116	130	
2—PANHARD—Heath	6:16										
Clock time		6:55:50	7:35:12⅘	8:09:38	8:48:11	9:16:40	9:53:24⅘	10:20:02⅘	11:03:10⅘		
Total elapsed time			79:12⅘	113:38	147:11	180:40	217:24⅘	253:02⅘	287:10⅘		
Miles per hour total			45.01	47.06	48.46	49.83	49.20	49.37	49.65		
Elapsed time—round		39:50	39:22⅘	34:25⅗	33:33	33:29	36:44⅘	35:38	34:07⅘		
Miles per hour—round		44.75	45.28	51.79	53.13	53.23	48.51	50 00	52.23		
Position in race		13	13	12	10	12	9	8	9	9	9
Passed stand		8	25	40	54	75	90	105	120		
3—MERCEDES—Jenatzy	6:17										
Clock time		6:47:02	7:17:18	7:46:27	8:14:32⅘	8:49:06⅕	9:17:45⅗	9:46:07⅕	10:14:24⅕	10:52:08⅗	11:21:38
Total elapsed time			60:18	89:27	117:32⅘	152:06⅕	180:45⅗	209:07⅕	237:24⅕	275:08⅗	304:38
Miles per hour—total			59.12	59 79	60.66	58.60	59.17	59.68	60.05	58.03	58.01
Elapsed time—round		30:02	30:16	29:09	28:05⅗	34:33⅗	28:39⅘	28:21⅗	24:17	37:44⅘	29:20⅖
Miles per hour—round		59.35	58.96	61.15	63.47	51:56	62.21	62 86	63.01	47.23	60.44
Position in rece		2	4	4	3	4	4	4	3	5	5
Passed stand		1	17	30	44	61	76	88	100	114	128
4—FIAT—Lancia	6:18										
Clock time		6:48:27	7:18:01	7:46:55⅘	8:15:13⅖	8:43:20	9:16:22	9:44:43⅖	10:13:22⅕	10:42:28⅖	11:11:28⅕
Total elapsed			60:01	88:55⅘	117:13⅖	145:20	178:22	206:43⅕	235:22⅕	264:28⅖	293:28⅕
Miles per hour—total			59.42	60.13	60.32	61.33	59.97	60.18	60.66	60.66	60:32
Elapsed time—round		30:27	29:34	28:54⅘	28:17⅘	28:06⅗	33:02	28:21⅘	28:38⅖	29:06⅕	29:00⅖
Miles per hour—round		58.52	60 29	61.68	62.98	63.41	53.95	62.87	62 22	61:20	61.46
Position in race		4	3	3	2	2	2	2	2	2	2
Passed stand		2	18	32	46	56	74	87	97	111	124
5—FRAYER-MILLER—Lawwell	6:19										
Clock time		6:52:34	7:59:14⅘	8:49:26⅗	9:29:24⅗						
Total elapsed			100:14⅘	150:26⅗	190:24⅗						
Miles per hour—total			35.56	35.55	37.45						
Elapsed time—round		33:34	66:40⅘	50:11⅘	39:58						
Miles per hour—round		53.11	26.75	35.50	44.59						
Position in race		8	16	14	16	16	16	16	16	16	16
Passed stand		5	37	62	79						
6—HOTCHKISS—Shepard	6:20										
Clock time		6:52:26	7:24:03⅕	7:54:58	8:25:21	8:59:14	9:29:37⅗				
Total elapsed time			64:03⅕	94:58	125:21	159:14	189:37⅗				
Miles per hour—total			55.65	56.31	55.89	55.96	56:41				
Elapsed time—round		32:26	31:37⅘	30:54⅕	30:23	33:53	30:23⅗				
Miles per hour—round		54.96	56.43	57.66	58.65	52 56	58.63				
Position in race		7	5	6	6	6	6	15	15	15	15
Passed stand		4	20	35	50	65	80				
7—MERCEDES—Luttgen	6:21										
Clock time		6:55:32	7:26:27⅗	8:11:02⅗	8:43:44⅗	9:15:48⅘	10:06:00⅖	10:43:36⅘	11:16:51⅗		
Total elapsed time			65:27⅗	110:02⅗	142:44⅗	174:48⅘	225:00⅖	262:36⅘	295:51⅗		
Miles per hour—total			54.48	48.59	49.92	50.98	47.53	47.51	48.18		
Elapsed time—round		34:32	30:55⅘	44:35	32:42	32:04	50:11⅘	37:36⅕	33:15		
Miles per hour—round		51.60	57.62	39.97	54.49	55.59	35.51	47.34	53.61		
Position in race		10	8	10	9	8	13	12	11	11	11
Passed stand		7	22	42	58	72	96	112	127		
8—FIAT—Nazzaro	6:22										
Clock time		6:52:41	7:24:44⅕	8:09:08	8:43:29	9:12:50	9:41:47⅗	10:19:36⅖	10:47:33⅘	11:14:58⅗	
Total elapsed time			65:44⅕	107:08	141:29	170:50	199:47⅗	237:36⅖	265:33⅘	292:58⅗	
Miles per hour—total			54 25	49.92	55.45	52.18	53.53	52.50	53.69	54.75	
Elapsed time—round		30:41	35 03⅕	41:28⅘	34:21	29:21	28:57⅗	37:49	27:57⅗	27:24⅘	
Miles per hour—round		58.09	50.85	43.41	51.89	60.74	61.55	47 14	63.87	65.02	
Position in race		5	7	9	8	7	7	6	6	6	6
Passed stand		6	21	39	57	70	85	101	113	126	

ance yesterday will confessedly and easily well outnumber them.

It may be even asked, has there ever been gathered to witness any one event in modern times so great a throng as skirted the Nassau county course on this last Vanderbilt cup day? Hundreds of thousands saw King Edward's coronation procession in London and viewed General Grant's funeral in New York. They were, however, packed along routes of comparatively few miles in length, while the concourse that saw the Vanderbilt race stretched along 30 miles of road. The crack descriptive writers of the press today are vieing with one another in attempting to give an adequate idea of the numbers at the Vanderbilt.

As for automobiles, no gathering of them that ever occurred before can for a moment be compared with the outpouring of them on this occasion. All day Friday they had been streaming into Long Island across ferries and bridges and heading courseward in an unbroken procession. All night long their lanterns gleamed through the fog and made a continuous blaze of every road leading to the circuit. New York did not furnish them all, by any means. They were contributed by the entire radius of territory whose spokes were Philadelphia, Pittsburg, Buffalo and Boston. Pennsylvania, New Jersey, New York, Massachusetts and Connecticut had yielded large quotas of their motor car population. It is safe to say that few cities east of the Mississippi were unrepresented in this vast automobile mobilization. New York had yielded up its motor cars so utterly that home-stayers remarked their conspicuous absence from the streets. Some put the Vanderbilt cup day motor car census at 10,000, others at 12,000, and still others at 20,000. Why guess? It is all a guess after all. The writer in a trip by train along the 20 miles of road between Westbury and Long Island City after the race saw a procession of them with not a break of a hundred yards between the cars. This, mind you, was but for an hour and the home-coming of the automobiles lasted from noon to nightfall.

CARRIED HIS OWN LUNCH.

But of the people? Where did they all come from and how did they manage to get there? From 2 o'clock to 5 o'clock in the morning there passed through the street in Westbury on which was located the cottage that lodged a part of the Motor Age

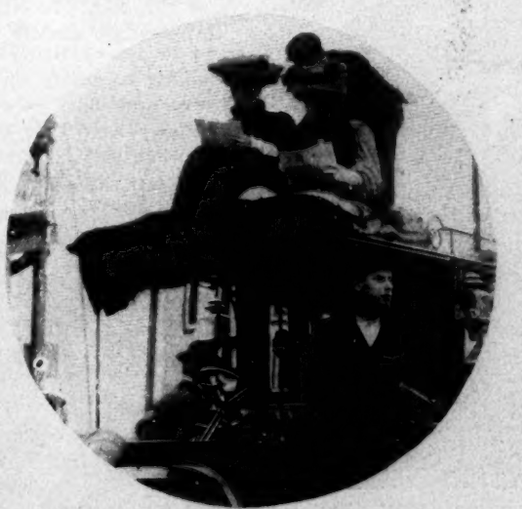
OUT BY A CLOSE STUDY OF THE REPORT OF THE TIMERS' CLUB

	Started	1st Round 29.7 miles	2d Round 59.42 miles	3d Round 89.13 miles	4th Round 118.84 miles	5th Round 148.52 miles	6th Round 178.26 miles	7th Round 207.97 miles	8th Round 237.68 miles	9th Round 269.30 miles	10th Round 297.1 miles
9—LOCOMOBILE—Tracy	6:23										
Clock time		7:01:48⅗	7:40:41	8:25:32	8:57:09⅗	9:23:30⅖	10:01:53⅕	10:42:19⅕	11:15:58⅗		
Total elapsed time			77:41	122:32	154:09⅗	180:30⅖	218:53⅗	259:19⅕	292:58⅗		
Miles per hour—total			45.89	43.64	46.51	49.37	48.85	48.11	48.87		
Elapsed time—round		38:48⅗	38:52⅖	44:51	31:37⅗	26:20⅘	38:23	40:25⅘	33:39⅖		
Miles per hour—round		45.93	45.86	39.74	56.36	67.66	46.44	44.09	52.96		
Position in race		12	12	16	14	11	10	10	10	10	10
Passed stand		12	28	51	63	78	94	110	123		
10—DARRACQ—Wagner	7:24										
Clock time		6:52:26	7:20:22⅘	7:48:39⅘	8:16:21⅘	8:48:30	9:15:52⅘	9:43:33⅘	10:14:18	10:42:12	11:14:10⅘
Total elapsed time			56:22⅘	84:39⅘	112:21⅘	144:30	171:52⅘	199:33⅘	230:18	258:12	290:10⅘
Miles per hour—Total			63.24	63.16	63.46	61.67	61.95	62.43	61.92	62.14	61.43
Elapsed time—round		28:26	27:56⅘	28:17⅕	27:14⅕	32:08⅕	27:22⅘	27:40⅘	30:44⅗	27:54	31:58⅘
Miles per hour—round		62.63	63.80	62.99	64.35	55.43	65.11	64.40	57.98	63.90	55.75
Position in race		1	1	1	1	1	1	1	1	1	1
Passed stand		3	19	33	47	60	73	86	99	109	125
12—ITALA—Cagno	6:26										
Clock time		7:01:17⅗	7:37:37⅗	8:10:05⅕	8:43:18⅗	9:21:38	9:52:37	10:24:46⅕	10:56:30	11:32:28⅘	
Total elapsed time			71:37⅗	104:05⅘	137:18⅗	175:38	206:37	238:46⅕	270:30	306:28⅘	
Miles per hour—total			49.78	51.37	51.94	50.74	51.77	52.24	52.71	52.34	
Elapsed time—round		35:17⅗	36:20	32:28⅕	33:12⅘	38:19⅗	30:59	32:09⅕	31:43⅘	35:58⅘	
Miles per hour—round		50.50	49.07	54.95	53.69	46.51	57.51	55.44	56.19	49.55	
Position in race		11	10	8	7	10	8	7	7	7	7
Passed stand		10	26	41	55	77	89	102	117	132	
14—HAYNES—Haynes	6:27										
Clock time		7:12:18	7:46:53⅘	8:21:08	9:05:35⅗	9:41:34	10:29:05⅘	11:08:28⅘			
Total elapsed time			79:53⅘	114:08	158:35⅗	194:34	242:05⅗	281:28⅗			
Miles per hour—total			44.62	46.86	44.97	45.81	42.79	44.33			
Elapsed time—round		45:18	34:35⅘	34:14⅕	44:27⅗	35:58⅗	47:31⅘	39:23			
Miles per hour—round		39.35	51.52	52.06	40.11	49.55	37.50	45.26			
Position in race		15	14	13	15	14	15	14	14	14	14
Passed stand		14	31	48	68	84	106	121			
15—BAYARD—Clement	6:28										
Clock time		6:59:21	7:32:52	8:01:36⅗	8:29:54⅕	9:06:26	9:35:48⅖	10:03:58⅗	10:32:16⅗	11:01:48	11:29:50⅘
Total elapsed time			64:52	93:36⅗	121:54⅕	158:26	187:48⅖	215:58⅗	244:16⅗	273:48	301:50⅘
Miles per hour—total			54.95	57.13	58 49	56.26	56.95	57.76	58.38	58.06	59.02
Elapsed time—round		31:21	33:31	28:44⅗	28:17⅗	36:31⅘	29:22⅖	28:10	28:18	29:31⅗	28:11⅘
Miles per hour—round		56.86	53.24	62.02	62.97	48.80	60.77	63.35	62 99	60 48	63.37
Position in race		6	6	5	5	5	5	5	5	4	4
Passed stand		9	24	38	52	69	82	95	108	119	131
16—FIAT—Weilschott	6:29										
17—CHRISTIE—Christie	6:30										
Clock time		7:04:07⅖	7:37:46⅘	8:13:02	8:58:36	9:56:18⅘	10:31:18	11:08:56⅕			
Total elapsed time			67:46⅘	103:02	148:36	206:18⅘	241:18	278:56⅕			
Miles per hour—total			52.58	51.89	48.05	43.18	44.32	44.73			
Elapsed time—round		34:07⅖	33:39⅕	35:15⅘	45:34	57:42⅖	34:59⅕	37:38⅕			
Miles per hour—round		52.26	52.97	50.58	39.12	32.00	50.91	47.36			
Position in race		9	9	7	11	15	14	13	13	13	13
Passed stand		13	27	43	64	92	107	122			
18—DeDIETRICH—Duray	6:31										
Clock time		7:01:18	7:39:10⅗	7:58:29⅘	8:31:27⅗	8:59:53⅖	9:29:39	9:57:43⅕	10:28:52⅕	10:56:52⅖	11:24:44⅕
Total elapsed time			59:10⅗	87:29⅘	120:27⅗	148:53⅖	178:39	206:43⅕	237:52⅕	265:52⅖	293:44⅕
Miles per hour—total			60.22	61.11	59 19	59.89	59.87	60.18	59.95	60.30	60.27
Elapsed time—round		30:18	28:52⅗	28:19⅕	32:57⅘	28:25⅘	29:45⅗	28:04⅘	31:08⅖	28:00⅕	27:52⅖
Miles per hour—round		58.83	61.73	62.94	54.08	62.70	59.89	63.48	57.24	63.66	63 95
Position in race		3	2	2	4	3	3	2	4	3	3
Passed stand		11	23	36	53	66	81	93	104	118	129
19—ITALA—Fabry	6:32										
Clock time		7:13:28	7:48:49⅖	8:25:06⅗	9:03:11	9:37:00⅗	10:14:13⅕	10:52:57			
Total elapses time			76:49⅖	113:06⅗	151:11	185:00⅗	222:13⅕	260:57			
Miles per hour—total			46.41	47.28	47.16	48.18	47 68	47.82			
Elapsed time—round		41:28	35:21⅗	36:17	38:04⅗	33:49⅗	37:12⅘	38:43⅘			
Miles per hour—round		42.99	50.44	49.05	46.81	52.76	48.17	46.02			
Positi n in race		14	11	11	13	9	12	11	12	12	12
Passed stand		16	34	49	67	83	98	115			

editorial staff, a mass of foot passengers as dense as that which pours out of the gates of a ball park after a big game, and, mind you, the procession continued for 3 hours and Westbury was but a single one of a dozen railroad stations tributary to the course. Ten-car trains packed to the steps and run from Long Island City as fast as they could be made up and gotten off deposited their thousands all night long and came back for more. All Long Island, too, seemed to be heading for the race. From other points and directions besides Brooklyn and New York they came by train, by wagon, by bicycle and on foot.

Why attempt to picture what all these thousands upon thousands meant as a sight even when stretched around a 30-mile circuit? No mile, no trotting track, was ever more completely encompassed than was the Vanderbilt course yesterday. In a word, the magnitude, the variety, the uncanniness of the whole event from every standpoint fairly staggers the boldest reporter to portray them with even approaching adequateness.

At night there was the weird assembling of the blazing cars in the fog; the shadowy things afoot and awheel winding their way through village street, country lane and dark woods; the swinging lanterns and megaphone cries of the grandstand and parking space barkers; the glare of the torches of the besieged "hot dog" stands; the camp fires of the motor car squatters by the roadside; the shrieks of the thousand vendors of fifty-seven varieties of "only official programmes;" and the lights and bustle of the training camps hurrying forward the last touches of preparation.



TWO FAIR ONLOOKERS

Daylight came, then day, and, when the fog had lifted, the race. Around that whole vast 30-mile autodrome hundreds of thousands awaited with eager gaze down the road and rubber-necks stretched to their utmost the coming of the cars.

"Car coming!" A low-lying monster approached in wobbling leaps, bolted and thundered into a nearer view, and then, zzziz-zip, and it was gone until the next one, and the next one, and so on during 4 long hours of tense watching and excitement.

At the turns the mobs swayed and pushed to see the cars skid around the corners and then straighten out.

INCIDENTS OF NIGHT BEFORE CUP RACE

PARKING SPACE AT REAR OF GRAND STAND

TENT OF AUTOMOBILE CLUB OF AMERICA

NEW YORK, Oct. 6—It might have been expected that there would be intense excitement in Westbury, Mineola, Garden City and other localities in close proximity to the course the night before the race—and there was. Furthermore there are not words to adequately describe the excitement—it required one's presence in order to obtain any sort of an idea of what was going on around the Nassau county course.

Thursday night was as dead and as quiet as a graveyard. At Garden City there was a bare baker's dozen enthusiasts outside of the training camps and in these places the drivers and mechanics seemed to have crawled into bed at an early hour to obtain a last decent sleep before they might be routed out for the big event. There was ample hotel and dining room accommodations on this Thursday night and at the usual Long Island prices; in fact, a stranger never would have suspected that inside of a few hours the country would be overrun with humanity and that the Long Island native would be reaping a bountiful harvest.

But the following night the scene assumed a transformation—from the natural Long Island solitude it went pell-mell into rip-roaring bedlam. There had been comparative quiet all along the line even up to noon, for there was a bare handful of spectators at the morning practice on the course. It had rained a little and there was a heavy fog on Friday morning, so these facts kept many of the practice attendants in bed; a few, however, kept up appearances and saw all that was to be seen. Clement, Jenatzy, Lawwell, Shepard and a few others were out for a round or two, but the condition of the roads would not permit phenomenal speed stunts. There was a little match race between Clement and Jenatzy in touring cars in which the former won easily even after giving the German a start of 10 minutes. Then the contestants and race followers left the course for breakfast and to prepare to see the cars weighed in at Garden City, which was to be a tedious all-day job.

STARTING FOR RACE 14 HOURS AHEAD OF TIME

It was at night, however, that the excitement began. Soon after noon cars began to reach the course from New York, and as the day wore on the number of cars on the road increased. The afternoon trains began unloading race-goers and officials, cars from little one-lungers to massive six-cylinder affairs began pouring in. The garages all along the course were soon bulging with automobiles; available spots near the hotels were crowded and there was an ever-moving mass on pretty nearly every highway that was passable. It would have been impossible to get them all on any one street. Pressmen, photographers and officials were hurrying here and there about something and those who had not been fortunate enough to secure sleeping places were on the skirmish for cots or any other old thing that would serve as a rest for the head. There wasn't much sleep anywhere. In the neighboring houses and cottages there were anywhere up to a dozen in one room, hundreds stayed up all night and amused themselves any old way, while a few who had rooms all to themselves got in a few cat naps.

It was a fight to even obtain a dinner and it required an hour's stand in a long line of pushing and hungry mortals to secure something to satisfy the inner man. But let it be recorded that all were satisfied, even if it did come pretty high—in price. There may have been some places along the course where ordinary prices prevailed, but nobody found them. Nine in a room, a breakfast of coffee, eggs and bread—$5. How's that? Does anybody wonder that the Long Islanders were in favor of holding the race again?

Toward dusk the swelldom of New York began putting in an appearance at the Garden City hotel, for be it known this hostelry had a cinch in the way of style and was the headquarters of those having charge of the race. It was not the only place on the island but at night it was the most important. The best cars of which New York can boast began to arrive about dusk and they poured up to the hotel every minute from that time on, unloading passengers and baggage and then being sidetracked in any convenient street, with a tired chauffeur left to snooze and play guard. By 10 o'clock there were hundreds of

cars in front of the hotel, with a small lane only left for those yet to come. There was race spirit all along the line—even the chauffeur cut out his muffler and did grand stand stunts in starting that made the timid shudder.

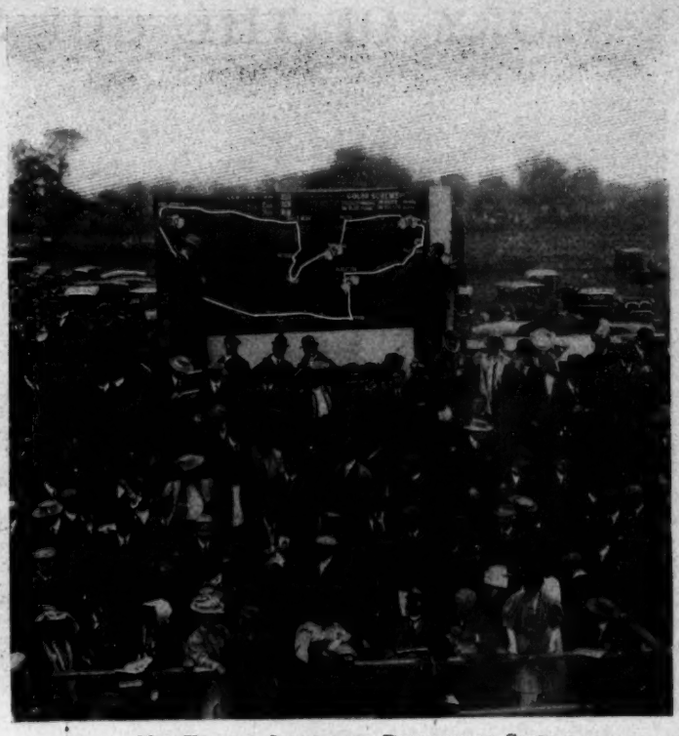
Those that were not so fortunate as to be able to secure rooms at the hotel amused themselves driving over the course. There was an exodus of cars from the hotels along during the early morning hours to secure parking spaces, and a trip on the course was a sign of a letting out of speed notches about to the limit. Cars came and went—they whizzed past one another in and about Westbury, Mineola, Krug's, Garden City and Hicksville. Manhasset, Lakeville, Bull's Head and other north road places were not out of it a bit—in that part there were exactly similar scenes and quite as large crowds of car-driving spectators. A trip around the course at night revealed the fact that there were thousands of automobiles located in convenient places so as to be on hand for the race when it should start at daybreak in the morning. Hundreds slept in their rigs and to add to the novelty of the occasion they carried breakfasts and lunches with them, some going as far as to have alcohol lamps for the purpose of warming coffee.

The ordinary people went to the scene of action by train—to the places that have been named—and then hoofed out along the course until a likely-looking vantage spot could be found. From 11 o'clock until an hour before the start of the race hundreds of trains were run over all branches of the Long Island railroad, each containing as many cars as were considered safe to be used. Each train was loaded to the rails and discharged its load all along the line where it came in close proximity to the course. Thousands tramped across fields and through potato patches to reach the course; the whole island seemed alive with people. There wasn't a place where a lid was on—in fact, there are no lids in Long Island.

The sandwich and red-hot men did a thriving business during the chill hours of a foggy morning; bonfires along the road were well patronized and were indeed comfortable. The hawker was there; likewise the fakir and the pickpocket. It was a cosmopolitan crowd for sure and a crowd such as no part of this country has before seen.

There were many wild drives along the road from Long Island City or New York out to the course that foggy and dark night before. There was race in the air and bushes on the road as a consequence. There was a skidding and bumping and a smashing of lamps, but no accident of a serious nature. One was recorded, however, by the officials of Garden City, a touring car having gone head on into a runabout with the result that three people were taken to the hospital, where later on one died. This accident occurred on the Mineola road, but there were so many conflicting statements about the affair that the blame could not be absolutely fixed.

Such was the night before the big race; it was wild in a way and it was as interesting as it was wild. It was a part of the



MAP USED TO ILLUSTRATE POSITION OF CARS

the tales of misfortune would have been like missing the last four or five laps of the race itself.

But the drivers—those fearless mortals who the following morning were to occupy the arena—where were they? A glance into any of the seventeen headquarters found mechanics bending over the motored monsters, bestowing on them the final caress ere they took the field on the coming morn. Hustling among the workmen in the early evening hours were the drivers, seeing with their own eyes, testing with their own eyes and putting in with their own hands many of the finishing touches that might mean victory or defeat on the morrow. Wagner, with characteristic French vivacity, mingled with military precision, superintended the Darracq preparations; Lancia saw the Fiats in their racing form; Heath was on deck until quite late; so were the drivers in other places. As 9 o'clock wore around the activity waned. Some headquarters were silent except for the army of watchmen who with bulging eyes watched the silent racers that were so soon to become the personification of speed. Drivers realize that rest is the main esential before a great race. To them it is keenness of eye, accuracy of judgment and determination not to be shorn of sleep by slight accidents or other minor reverses. At best their rest was short before Father Sol should announce the coming of the eventful day of days in the motoring world.

PORTION OF CROWD AT HAIRPIN TURN

KRUG'S CORNER AND ITS MOB OF SPECTATORS

STORY OF THE CUP STRUGGLE BY ROUNDS

DRIVER WAGNER WAITING FOR THE WORD FROM STARTER WAGNER

NEW YORK, Oct. 8—Day dawned anything but auspiciously for the third running of the Vanderbilt cup race. There had been rain the day before and all during the night a wet mist had enveloped Long Island. In the fog and with the discouraging "rain" predictions of the government weather bureau the mighty multitude came from under cover of roof, train and waterproof with dire forebodings of discomforts to themselves and disaster to cars and drivers.

Long before daylight the home stretch was a hopeless jam of automobiles and foot passengers. Even at this unearthly hour the grand stand was fast filling with those who in their enthusiasm did not wish to miss a single factor of the spectacular event.

Dawn, delayed by the fog, did not come until some minutes after 5 o'clock. With the first peep of it the officials, backed by a squad of efficient Pinkertons, met and a section of the tin-bebadged rural constabulary set to work to clear the course. It was done with surprising celerity and but for a score of arm-badged officials and omnipresent hayseed cops Mr. Vanderbilt when he drove up at 5:32 in his gray Mercedes, on which was painted "Referee" in big black letters, found the home stretch cleared for action.

It was now light and one had a chance to see the surroundings. There was a bit more elaboration in the decorations than at the eliminating trial. From the tall center pole floated the American ensign and the three-ring emblem of the A. A. A. At the east end of the stand the banner of the Chicago Automobile Club flapped weakly on its staff and at the west end the club flag of the Automobile Club of America. Between them were the national standards of France, Italy and Germany. Stretched along the front of the grand stand was hung red, white and blue bunting, and an American shield was pinned to American flags beneath the box at the tape. At the back of the stand high up fluttered strings of yacht and signal flags.

The most conspicuous fitting to the grand stand, however, was a monster green board with an outline map of the course in white. Miniature cardboard automobiles in red for America, blue for France, white for Germany and yellow for Italy, bearing the numbers of the contesting cars were used to designate the position of the racers on the course as communicated by a telephone at hand. It was a good idea, but it required rather too close attention for a man otherwise busy to figure it all out.

Facing the grand stand was the two-storied stand for the timers, the press, the photographers and the telephone booths. Twenty-three phones, each manned by an operator, stretched to as many points on the course and furnished the facts that Peter Prunty bellowed incessantly through his megaphone. The Timers' Club, of New York, a bunch of bicycle race and athletic game veterans, did the clocking without a hitch or delay.

To the west of and adjoining the grand stand were the parking spaces and opposite a private stand for Thomas Hitchcock, who had given the use of his property free. Away to the east and the west for a thousand feet each way extended the high wire fencing that shut out the "standee" public until toward the end of the race, when the wire was cut with nippers and the crowd surged on the course, leaving but a narrow lane for the perilous passage of the racers.

Six o'clock came, but neither Starter Wagner nor Timer Butler was on the line. Word had come from the phone stations around the course that fog still hung dangerously low on the course. Accordingly the start was delayed 15 minutes.

The lay-out of the send-off was as follows:

No.	Driver	Car	Start
1.	LeBlon	Thomas	6:15
2.	Heath	Panhard	6:16
3.	Jenatzy	Mercedes	6:17
4.	Lancia	Fiat	6:18
5.	Lawwell	Frayer-Miller	6:19
6.	Shepard	Hotchkiss	6:20
7.	Luttgen	Mercedes	6:21
8.	Nazzaro	Fiat	6:22
9.	Tracy	Locomobile	6:23
10.	Wagner	Darracq	6:24
12.	Cagno	Itala	6:26
14.	Haynes	Haynes	6:27
15.	Clement	Clement	6:28
16.	Weilschott	Fiat	6:29
17.	Christie	Christie	6:30
18.	Duray	De Dietrich	6:31
19.	Fabry	Itala	6:32

The red whiskered Belgian, Jenatzy, looking for all the world like a Dreamland gnome in his racing hood and white sweater, was first on the ground at 5:31. Then came the aristocratic-looking Heath in his blue Panhard, followed by the sad-faced, long-bearded LeBlon in khaki.

The hope of the tribe of Thomas in new red paint took its place on the line at 10 minutes before 6 o'clock, the hour set for

the start. At first a rope was stretched across the track behind LeBlon, but it was soon taken down and Heath and Jenatzy lined up behind LeBlon in order of their start.

Foxhall P. Keene was a non-starter owing to having broken two cylinders in practice. Robert Graves says his refusal to lend Keene his spare ones was that he had but one extra pair for any emergency that might arise before the race. John Haynes was substituted for H. N. Harding, who drove the Haynes in the elimination race.

"Dees, nuf, weat, set, sees, sauk, catre, torh, deh, and partay," in long rehearsed French of unimpeachable Parisian accent from "Wag" accompanied by a pat on the back and LeBlon was on his way amid cheers and the big race was on.

Tracy got an ovation and Lancia a send-off that must have warmed his heart. Nazzaro was a bit slow in getting away and the Frayer-Miller stopped for an instant after crossing the line, but Lawwell got the car going again quickly.

Two minutes after Fabry, the last starter, got away Prunty shouted out the first news of the racers. It was that LeBlon was slightly delayed at East Norwich and then that Luttgen was going very slowly at the corner of Mineola and Westbury avenues. Then followed announcements at short intervals of the different cars passing various points of the course.

There were not many minutes to wait for the arrival of the first car. The red flags waved, the bugle blew, the megaphone man bellowed "Car coming," a white-sweatered pair hove in sight.

The Belgian had passed by LeBlon and was leading the long procession of high-powered racing cars. Next by was Lancia steering nonchalantly with one hand, the other waving in answer to the salutations of the throng. Then 5 minutes later two more straining monsters hurtled into view neck and neck. Wagner passed Shepard at the tape and just behind the dueling pair came Nazzaro. It was easy to see that the Darracq driver had made a great run from his thus early having gained so high a place in the procession. When the round was over there was a scratching of pencils and it was seen that in elapsed time Wagner led Jenatzy, the nearest man, by 1 minute 36 seconds. Duray, too, had beaten Lancia and was only 16 seconds behind Jenatzy. It was getting exciting at this stage of the race.

A whole tragedy of trouble had come to the squadron on this lap, for near Manhasset Dr. Weilschott to avoid hitting a boy had ditched his Fiat and was out of the running for good because of his desire to avoid an accident.

As Tracy reached the grand stand he stopped and called for Mr. Vanderbilt, telling him that the crowd was so encroaching on the course that fast driving was perilous. In fact he had bowled over a boy, luckily, however, without injuring him. The referee at once had the stations phoned that unless the course was cleared he would call the race off the next round. Tracy had also stopped at Willett's road to fix his tires. LeBlon had to replace three tires and when this had been done he was last in the race with 57 minutes 32 seconds against him for the first round. Heath and Haynes had also had to stop for tire repairs. Fabry's engine

LE BLON IN A THOMAS THE FIRST DRIVER TO GET THE WORD

JOE TRACY AND THE LOCOMOBILE AT THE TAPE

troubles began, which continued pretty well through the race.

At the end of the first lap Lawwell was leading the American contingent in eighth place, with Christie next behind him, Tracy in the "13" hole and Haynes and LeBlon bringing up the rear. Things looked blue for Uncle Sam from the very start.

Fast as he had been going at the start, Wagner still further increased his pace the second round and by its end had cut down the line ahead of him and was fast overhauling the flying leaders. Jenatzy held to his captaincy of the procession stubbornly and passed the stand hard pursued by Lancia. Wagner's great going, however, had increased his actual margin to 3 minutes over the Mercedes man and the Fiat flyer. Thus early in the race the Darracq dare-devil seemed actually to be making a runaway of it. Shepard was going splendidly and had passed Nazzaro and Clement and taken fifth place. "Two cars coming," cried Prunty. Down the course racing neck and neck came Luttgen and Nazzaro, the Italian passing the German at the tape. Then there was a let-up in cars passing.

As college boys encourage a team in a hard-luck moment by singing "Alma Mater," the band struck up "The Star Spangled Banner." The stand rose and even the busy officials took time to raise their hats in recognition of the national anthem. The American supporters needed encouragement indeed; for the Yankee cars were still far down in the line, led by Christie in ninth place. Tracy and Le Blon had each gained a place but yet were in twelfth and fifteenth positions. Lawwell had had to put on two tires at Jericho and had dropped to the very end of the procession. Nazzaro had had tire troubles. Lancia was holding on well, considering the fact that he had had to stop at Albertson's to change three tires.

All this time Wagner was tearing along with constantly increasing speed, covering the third circuit in 28 minutes 17 seconds, which was faster time than was made by any other driver for this lap, he led Duray by almost 3 minutes. The de Dietrich driver was still second, a minute to the good over Lancia. Clement passed Shepard and Christie got by Nazzaro and Luttgen, both of whom had had tire troubles, into seventh place, the nearest to the front attained by any American car in the whole race. The crowd hollered for Christie.

In this round poor Tracy was stopped for the third time by tire troubles, having lost 7 minutes at Jericho in replacing three of them, besides encountering a brief delay to adjust his carbureter. All this calamity landed him into fourteenth place, just ahead of Le Blon, who was next to last in the line. The American stars were certainly up against it for fair and from the same cause. The stand had been informed of Tracy's troubles by megaphone and cheered him as he flashed by at the close of the round with his Locomobile running in splendid shape, as it invariably did when its tires permitted its racing at all.

The fourth round was characterized by a magnificent spurt by Lancia, which put him by Duray for good. Though the Italian had made the circuit in 28 minutes 18 seconds, Wagner went still faster, once more leading the bunch in 27 minutes 42 seconds and raising his lead close to 5 minutes. Jenatzy tied Lancia's

LANCIA IN ONE OF HIS CLEVER STUNTS ON HAIRPIN TURN

lap time and passed Duray. Clement and Shepard clung stubbornly to fifth and sixth positions. Le Blon made a good run with the Thomas in 30 minutes 7 seconds, which carried him by Fabry, Tracy and Haynes into twelfth place. Fabry had been having a hard time with a stubborn engine, which balked practically from start to finish. With the race nearly half over Tracy, who had been floundering in a sea of tire troubles, cut loose with the Locomobile in the fifth round and made the fastest lap and most sensational run of the whole race. The performance of the Locomobile was a revelation to the foreigners. It covered the 29.7-mile circuit going at the rate of 65 miles an hour, beating Wagner's best time by 1 minute 1 1-5 seconds and capturing for America the record cup of the contest. In his splendid run Tracy passed Heath, Christie, Fabry and Le Blon and took tenth place, which he held to the end of the race.

When the announcement of Tracy's feat was made the stand woke up and cheered wildly. Could Tracy have heard the ovation it would have healed some of the wounds of his bitter disappointment; but by this time he was speeding down the course well toward Jericho. Over on the backstretch more trouble came to Tracy; for in rounding the turn at East Norwich his car skidded, and struck a boy, breaking the youngster's leg. This, of course, was in the sixth round.

In this round also came the one fatality of the contest. It was a wonder and a blessing there were not a dozen more of them. Just after Shepard had rounded Krug's corner and crossed the railroad tracks at Mineola a man ran recklessly across the course to where a crowd had gathered by the roadside to watch Lawwell, who was trying to repair a broken fan sustained by a chicken being tossed up and hitting it. Shepard struck the man, Curt Gruner, of Passaic, N. J., and killed him instantly. The crowd had left but a narrow path and Shepard had no chance to turn out. Not knowing the extent of the victim's injuries he continued the race.

Half the race over, a quintet made up of three Frenchmen, an Italian and a German led, closely pursued by Shepard. They were in order, Wagner, Lancia, Duray, Jenatzy, Clement. Wagner had slowed down to 32 minutes 9 seconds for the lap, and Lancia had raced faster than ever, scoring 28 minutes 7 seconds, the fastest run of the round barring Tracy's 26 minutes 20 4-5 seconds. Lancia had closed up to within 50 seconds of Wagner. It looked as if the killing had begun and that Lancia, reckoned as having so far been perhaps held in leash, had at last cut loose for his expected hair-raising finish. There were even bets that he would beat Wagner and 3 to 5 was wagered that the Italian would get the cup; for he led Duray by 3 minutes 13 2-5 seconds. Jenatzy and Clement were 5 and 10 minutes respectively behind Duray. It seemed a case of Wagner, Lancia, Duray and the others out of it so far as the cup was concerned.

Lawwell had been put out of the running the previous lap by his broken fan and Christie and Haynes had dropped back to the tail end of the procession.

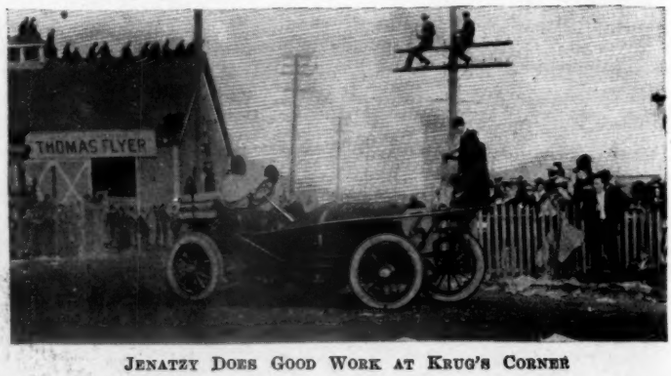
Up to its halfway point the race had beaten all international road racing records in the closeness of the struggle between six leaders and in the fact that fifteen out of seventeen starters were still running.

It had been raining, but it now began to clear and wraps were discarded, displaying for the first time the autumn finery the women had donned for the race.

With Lancia so dangerously close to his heels Wagner met the emergency with a startling burst of speed, covering the circuit in 27 minutes 22 seconds, a run beaten only by Tracy. Lancia somehow got in the doldrums and fell away to 32 minutes 42 seconds for the round. This gave Wagner a lead of nearly 7 minutes over him and permitted Duray to creep up within 17 seconds of him. Two minutes behind Duray was Jenatzy, leading Clement over 7 minutes. All this time Tracy, despite his being unnerved by hitting the boy at East Norwich, was making good time; but Le Blon was doing better, in fact, showing his best speed of the day. The Thomas covered the sixth circuit in 28 minutes 38 seconds, which put it by the Panhard into eleventh place just behind the Locomobile. In the order of passing the stand as well as elapsed time Wagner led the procession at the end of the sixth round, formed in the order of passing by Lancia, Jenatzy, Shepard and Duray. In a race of 198.2 miles, starting in tenth place, 9 minutes after the first man, Wagner had passed Tracy, Nazzaro, Luttgen, Shepard, Lawwell, Lancia, Heath and Le Blon.

Wagner now seemed to have the race well in hand and attention was concentrated on the neck and neck struggle of Lancia and Duray were having for second place. The Italian, it will be remembered, led the Frenchman the previous lap by 17 seconds. Duray made this up in the seventh round, the pair being at an absolute dead heat, each having run the 207.9 miles in 2:26:43⅘. Wagner still had the better of the pair, however, by 7 minutes. In this round Shepard came to grief through breaking his crankshaft at East Norwich and was forced to retire. He had made a splendid run with the Hotchkiss, was seventh the first round, fifth the second, and had hung to the heels of the leading quintet all the way from there to the end of the sixth lap. Heath and Le Blon had tire troubles but managed notwithstanding to hold their places in line ahead of Tracy. The seventh round was the last one completed by Fabry, Christie and Haynes.

In the eighth round Lancia pulled a couple of miles away from Duray and cut down Wagner's lead to 5 minutes. With Shepard



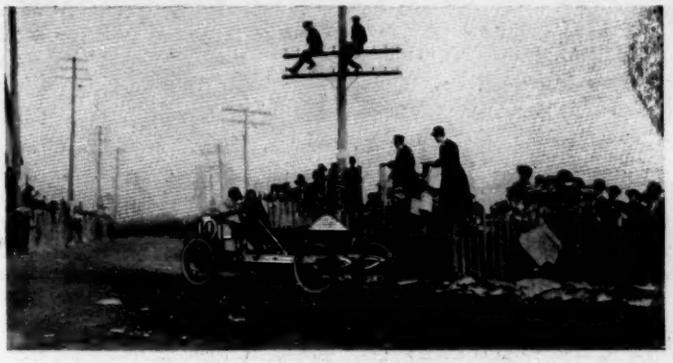
JENATZY DOES GOOD WORK AT KRUG'S CORNER

out of the running Nazzaro made a heroic effort to close the big gap that yawned between him and the leading quintet. Though he put up a lap in 27 minutes 57 seconds, the fastest of the round, he was still 21 minutes behind Clement at the end. This fast going, by the way, he continued, doing the ninth lap in 27 minutes 26 seconds, which was within 4 seconds of Wagner's fastest time.

The round before the last brought no change in the position of the leaders except that Clement then and there wrested for good fourth place from Jenatzy. Wagner resumed his fast flying as the finish was neared, covering the ninth lap in 27 minutes 54

seconds. Lancia had pulled a mile and a half away from Duray.

With the tenth round begun, the homestretch entered and the goal in sight, it was Wagner—nobody else but Wagner. And why not? With but one more lap to go he had a lead of 6 minutes 14 seconds over Lancia, who led Duray by 1 minute 24 seconds, with Clement next at a 2-minute interval, Jenatzy bringing up the rear of the leading quintet a minute and a half further back. It was all over but the shouting. But hark to Prunty: It wasn't, after all. "Wagner is laid up at Bull's Head with tire troubles." It may not have been sportsmanlike, but there was a wild cheer of glee from the partisans of his four pursuers.



WAGNER DOES NOT FEAR KRUG'S CORNER

"Lancia wins after all," was the murmur that ran through the grandstand. Intense excitement followed. "Will Wagner's removable rims save him?" was the universal query. The news had reached the spectators up the road. Long since this they had cut the wire fencing and broken down the barriers. Now they excitedly crowded into the middle of the road without restraint looking eagerly up the road. Then the spectators on the grandstand saw the human wall open and leave a narrow lane. "Lancia! Lancia!" came from up the course. "Lancia! Lancia!" was screamed on the stand as the popular Italian shot by. There was a listening for the official hour of Lancia's finish, then a general pulling out of watches; Wagner had 6 minutes 16 seconds in which to save the race. He had started, you know, far down the line. Five minutes, 4 minutes, 3 minutes passed and no Wagner. A second later once more the human barrier gave way, once more a shout went up. It was "Wagner! Wagner!" this time. Cheer after cheer followed the flying Frenchman as he shot down the narrow, spectator-bound lane and by the grandstand with 3 minutes 18⅘ seconds to spare. Once more France had won. Again had a Darracq captured the Vanderbilt cup from the finest field in its history.

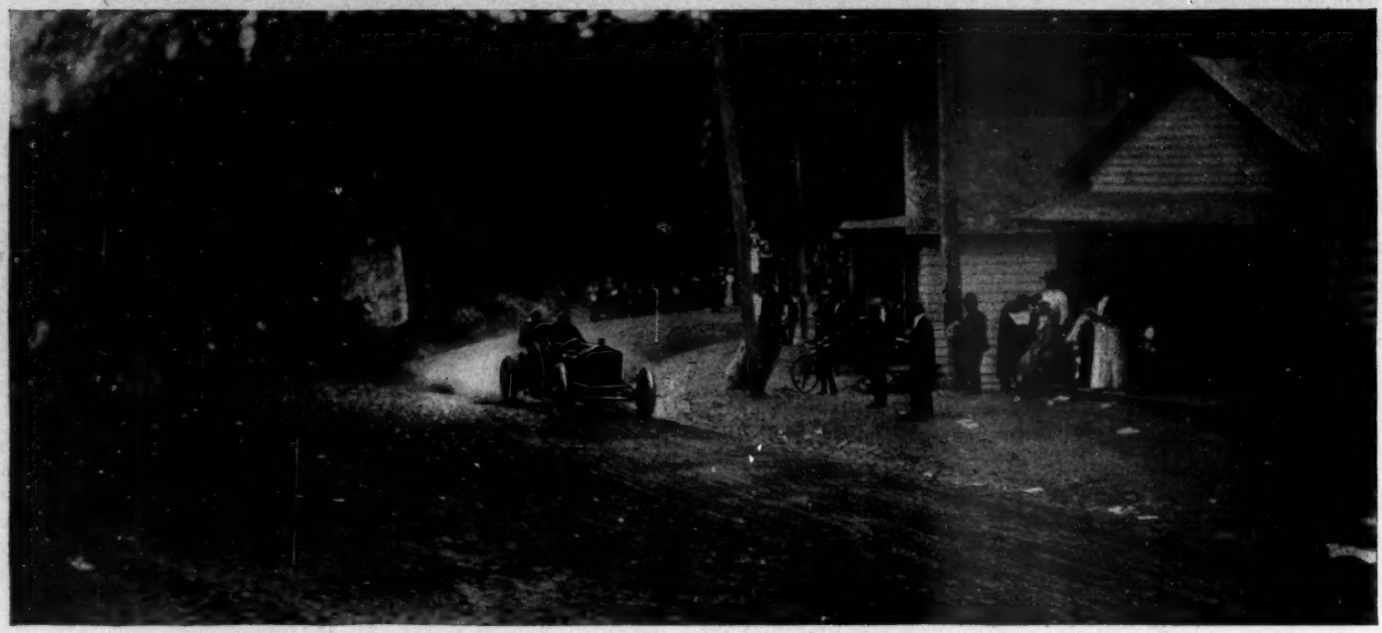
"Catch Lancia or die." With these words ringing through his brains Wagner faced the starting line at exactly 6:24, realizing that his Italian competitor had 6 minutes start on him and that before he overtook him he had to eat up this margin. At this Herculean task the Frenchman started from the second he received his starting "Go," at which instant Lancia was a good 6½ miles ahead. Few of the spectators lining the grand stand or the course fully grasped Wagner's battle cry. To Wagner Lancia was his most formidable competitor and once he caught him it would mean a clear lead of 6 minutes, a margin wide enough to win even if a puncture was encountered. The end of the first lap told the opening sentences of this "catching" story. Wagner had eaten up 2 minutes 1 second of Lancia's lead. The Italian was now but 3 minutes 59 seconds ahead. His lead of 6½ miles had been cut down a third in the first lap. At the second lap darted the redoubtable Frenchman and his all-conquering car. The end of this lap added another sentence in the time-eating problem. One minute 35⅘ seconds had been gained on Lancia in this lap. Of the 6 minutes lead 3 minutes 36⅘ seconds were gone. Wagner had more than eaten up half of the margin Lancia had at the start. Two more rounds like this and the Frenchman would no longer be trailing the Italian. He would have overtaken him. The third lap saw Wagner register a further gain of 1 minute 37⅘ seconds. The total gain at the end of the third round was 5 minutes 14 seconds. The invincible Frenchman was but 46 seconds away from the goal of his ambition. With wide-open throttle he dashed into his fourth lap.

The fleet Fiat was passed. In less than four laps Wagner had gained 6 whole minutes on the driver looked upon as the greatest speed king of the day. Toward the finish of the fourth lap leaped the victorious Darracq, crossing the line 9⅘ seconds ahead of the Italian. But the victory was short-lived. Lancia clung to the wheels of Wagner as they started into the fifth lap, determined that the end of the first half of the race should at least see him once more leading the Darracq. He had a short wait for his chance. Wagner's terrific pace in the opening four laps told on his tires and changes on the back wheels became imperative. The result was Lancia gained 4 minutes 1⅗ seconds, leaving Wagner away behind him but still the leader in the point of time by 2 minutes 8 seconds. So ended the first half of the battle royal—Lancia ahead on the road, but Wagner leading in point of time.

Beginning the second half of the long grind Wagner had once more to grit his teeth and mutter to himself "Catch Lancia or die." What he had done in the first half he could do in the second. But the task was not to make up 6 minutes. Lancia was now but 3 minutes 52 seconds ahead of him on the track. A fraction of a lap was enough to eat this up. Lancia was in need of new rear tires. He took the sixth round to do this and in the meantime Wagner sprung into the lead, gaining 5 minutes 39⅘ seconds in the lap. Wagner passed the grand stand at the end of the sixth at exactly 9:15:52⅘. Lancia was less than a minute behind him, passing the tape at 9:16:22. Three more laps! Would Lancia once more pass the Frenchman? Not for a lap or so. In the seventh Wagner added 41 seconds more to his lead. He was now 2 good minutes ahead of the Italian on the road and leading him by over 8 minutes actual time. But this soon vanished. In the eighth Lancia gained 2 minutes 6⅕ seconds. He had passed Wagner, crossing the tape at the grand stand at 10:13:22⅕, while Wagner crossed nearly a minute later at 10:14:18. Could Wagner still finish ahead of the Italian? He had only two laps to overhaul him in. One was enough for the speedy Dararcq. Wagner crossed the tape for the ninth time exactly 16⅘ seconds ahead of Lancia. Lancia's turn was at hand. Wagner led to Bull's Head but no further. Here a tire collapsed. A few seconds later the big Fiat roared past. Wagner's last hope to cross the finishing line ahead of Lancia was gone forever. His only hope was to repair his tire and finish within the 6 minutes lead he had at the instant the Italian whizzed past. But 4 of the 6 were needed. The tire was done; the last stage of the circuit was commenced. Lancia had crossed the tape first, but not a winner.

NAZZARO THROWS UP DIRT ON HAIRPIN TURN

INDIVIDUAL EXPERIENCES OF DRIVERS



FABRY IN THE ITALA STRAIGHTENING UP AFTER ROUNDING THE PICTURESQUE TURN AT MANHASSET

NEW YORK, Oct. 7—The William K. Vanderbilt, Jr., cup race of 1906 was essentially a race of drivers. Never before was there such a large percentage of cars running at the conclusion of the race and at no American road race has there been so few engine and car troubles. The chief delays were caused by the tire troubles which, on account of the condition of the road, were many and severe. It was stated after the race that there were no fewer than sixty-five replacements of all makes on all the cars. This was due to the slippery condition of the roads and the almost constant skidding of the cars. All the drivers put on anti-skid bands, but these did not work satisfactorily in all cases. The hard driving, coupled with the strain of remarkable centrifugal force, tore away the anti-skid bands. Tracy took his bands off in desperation and drove without them. Other drivers wanted to do so but refused to take chances. The low averages in all the records were influenced also by the crowds which thronged the course and flowed over the track so that the drivers could not see the line of the road in many places. All the contestants complained bitterly of this. The Itala drivers, accustomed to an entirely clear course, said, after the race, that they had only continued because their orders were to keep running. Shepard's heartbreaking experience was only the realization of what all expected. Weillschott came to grief because he tried to avoid another tragedy. Tracy stopped at the starting line on his first lap and protested. Duray, Lancia, Wagner, Nazzaro, Lawwell—all laid their slow time to fear of consequences if they drove full power at the crowds. For this reason the northern stretches on the North Hempstead turnpike going into Bull's Head and the Williston road back from Lakeville, where the crowds were relatively thin and retiring, saw the fastest running. The French and Italians and Tracy and Jenatzy let out their machines on these stretches with remarkable results. More than 100 miles an hour was achieved on the North Hempstead turnpike by at least six cars. But when these drivers took advantage of the thin crowds, they again ran the risk of tearing their tires, and there was a consequent delay following while removable rims fulfilled their functions or the more ancient clincher tires were clinched. Thus the race became a matter of nerve, judgment and luck of drivers, rather than a test of cars.

The mobs that lined up around the 30 miles of oiled highways were reckless and forgot themselves in their eagerness to see every detail of the great struggle taking place. They got as close to the road as possible and particularly on the turns did they laugh at danger. In many cases they were encroaching on the preserves of the drivers and at Krug's corner some of the cars came as close as 18 inches to running over the feet of some of the crazy ones. Indeed Tracy in one of his circuits skidded and sent a cloud of dirt flying over the throng. Several of the foreign drivers, notably Jenatzy and Wagner, adopted novel tactics by approaching the turns on the zigzag, in this way frightening the people, who could not tell which way the cars were coming. This is what each driver did:

No. 1—Le Blon in the Thomas

Le Blon in his red Thomas had been a long time at the starting line. The postponement of the start did not, however, apparently increase his nervousness. He was much calmer than at the start of the eliminating race. He was stopped at the tape and made to move back until he was well behind the tape. Right here it should be pointed out that Chairman Thompson made all the contestants keep back of the tape so that no part of the wheel was over it. This is contrary to A. A. A. racing rules, which provide that the wheel may touch the tape.

Le Blon got away in good style, his mechanic working the oil pump fiercely. He was cheered wildly. But he got no further than Jericho when he was laid up with a burst tire. He ran as far as the 5-mile post where the Diamond tire people set to work and put on a front tire in fairly quick time. But while he was waiting at this point, Heath, Jenatzy and several other contestants passed him. Le Blon's tire troubles did not end here. He had to run to Albertson and there remove both rears and one front tire and replace them. Fairly good time was made, but Le Blon lost in all about 26 minutes on tire repairs in the first round. This cost him a fairly good place in the race. His average for the laps which followed was so good that he might have finished at least in third place had his tires held from the start. But this is dealing in what might have been. The engine ran well from the start and the E. R. Thomas idea may safely be said to have been thoroughly vindicated. In the second round Le Blon passed Haynes at the Jericho turn in a spectacular manner, but aside from this he drove conservatively and steadily, being somewhat less annoyed than other non-American drivers because of the encroaching crowds, on account of his eliminating trial experiences. Le Blon's time by laps was as follows: 57:32, 31:43, 30:47, 30:07, 30:33, 28:38, 30:56, 30:49, 31:21. His best lap was his sixth. His positions in the race at the close of his nine laps were as follows. Sixteenth, fifteenth, fifteenth, twelfth,

twelfth, eleventh, eighth, eighth, eighth. It will be seen that he consistently improved himself. He was running fast when the race was called off.

Hubert LeBlon is a French engineer, 32 years old, and his first bit of competition work was in 1901 and 1902, when he won the hill-climb at Nice. He has been in almost every race run in Europe and is looked upon as one of the very best in France.

No. 2—Heath in the Panhard

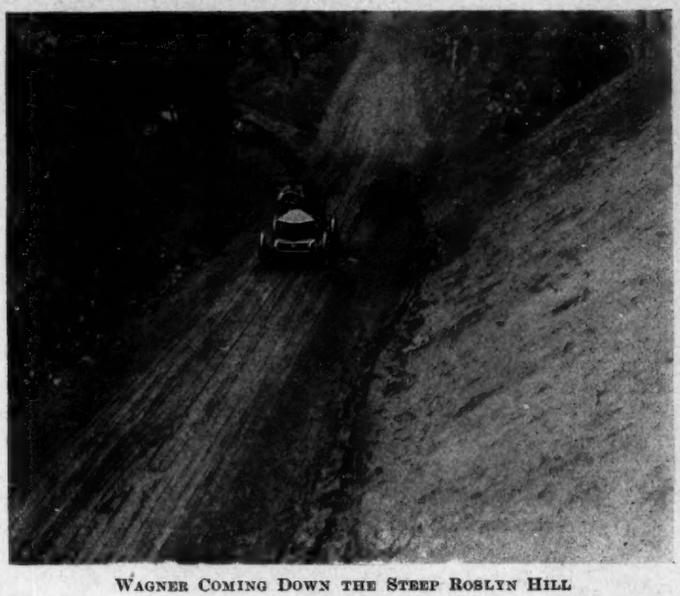
To a man of George Heath's prominence and position, the poor work of his Panhard and the constantly recurring tire troubles which kept him traveling slowly must have been exceedingly discouraging. The machine was painted a dark shade of blue, and as it drew up to the tape was as great a contrast to the scarlet Thomas which had preceded it as could possibly be imagined. Cranked, its cylinders exploded steadily and with the peculiar Panhard "whirr." Heath was cool and debonnair and was a great favorite with the society folk. He was cheered as he got away, going well toward what seemed to be a human wall across the track which opened for him to pass and closed again. From the very first the crowd was reckless. Heath had tire trouble in both the first and second rounds and magneto trouble from the first. His engine would not give the tremendous power which everyone, including the driver, expected of it. Hence his time throughout the race was slow, his best lap showing no better time than 33 minutes 33 seconds. Heath was greatly annoyed and after a number of slow rounds made no very great effort to drive fast, contenting himself with keeping the car in the course and running and taking brushes when some of his competitors pressed him. There is very little more to be said about Heath. He came in for a good deal of sympathy from his society friends, but the general crowd did not worry itself much about his troubles. He refused to talk very much about the race after it was over, but thought that the crowds in their careless nonchalence would make future road races in America an impossibility. Heath's record by laps was as follows: 39:50, 44:22, 34:26, 33:33, 33:34, 36:44, 35:38, 34:08. His best time was in the fourth lap. His positions were fourteenth, thirteenth, twelfth, tenth, eleventh, ninth, ninth, ninth. He was still at it when the yellow flags were waved in token that the race was done.

George Heath, like Shepard, is a gentleman driver and always a Panhard fan. Few big competitions have been run without him being in them, but his best race was the first Vanderbilt, which he won. He was second in the American classic last year.

No. 3—Jenatzy in the Mercedes

Jenatzy had far better luck with his Mercedes car than he has had on previous Vanderbilt occasions. That is to say, he did not lose any of the cylinders of his car nor did it show a breakdown

DR. WEILSCHOTT'S CAR AFTER ITS MISHAP



WAGNER COMING DOWN THE STEEP ROSLYN HILL

in any way. On the fifth and ninth laps he had extensive tire trouble and there were rumors of slight magneto troubles and these operated to delay him and cause him to finish in fifth place instead of farther up the line. Jenatzy got a poor start, he having a little difficulty in getting away when Starter Wagner gave him the word. He drove very hard for the first round, passing Le Blon with tire trouble and Heath during the circuit and being the first man to pass the grandstand. On the third and fourth rounds his car was running well, the latter lap being the fastest made by him during the day—28:05. There were exciting times in Jenatzy's race—times when Jenatzy did not know whether he was going into the crowd or not. And once he had an exciting brush with Lancia at the hairpin turn, the two cars going around so close together that it made the spectators gasp. But Lancia drew away from the Belgian after the turn was passed. In the eighth round he had the satisfaction of passing Wagner, who was stopped at the 10-mile post with tire troubles and for a few minutes had hopes of regaining his lost time and being well in at the finish. But he had more tire troubles himself, after passing Wagner, and the lap turned out to be the slowest he had made during the day. In spite of a fast last lap he was not able to do better than to run fifth in the final roundup. Jenatzy's times for the rounds were as follows: 30:02, 30:16, 29:09, 28:05, 36:34, 28:39, 28:22, 28:17, 37:44, 29:30. His positions at the close of the ten rounds were: Second, fourth, fourth, third, fourth, fourth, fourth, fourth, fifth, fifth. His fastest lap was the fourth.

Camille Jenatzy, 35 years old, is the veteran of the bunch and the greatest feather in his cap is his win of the Bennett the year it was run in Ireland. He is an electrical engineer and in 1900 he startled the motor world by driving his electric freak car, La Jamais Contente, 1 kilometer in 32 seconds.

No. 4—Lancia in the Fiat

Lancia touted to make the running in this race as he did last year, made a brave effort to support those who had confidence in him. He was not the choice of the representatives of the company, but his work in the past made him a great favorite with the crowd. At the stand he was cheered as he started but was chagrined at having trouble as he left the tape. It was only a difficulty in getting his gears meshed and he was up and away again very speedily. He went well for five laps. As he followed Jenatzy, second to pass the stand on the first lap, the spectators murmured, and the murmur, translated, was: "Well, Lancia is cutting it out again." But there was none of the spectacular driving of 1905 on the part of Lancia. The surging crowds took the starch out of him and the miserable, slippery roads spoiled and tore his tires. He could not let the Italian car out and he was compelled to take the turns very cautiously. In

LE BLON'S THOMAS AT A TIRE STATION

the second lap he had tire trouble at East Norwich and was delayed a considerable time. In the fourth he had the brush with Jenatzy, above narrated, and then settled down to steady pounding and hoping that the other contestants were having as tough a time as he was. They were. The fifth lap in 28 minutes 07 seconds brought the Italian up and he was then running only 50 seconds behind Wagner. The Fiat rooters were enthused and there was a good deal of encouragement for Lancia in the way of cheers as he drove. But in the sixth lap he had serious tire trouble and had to lay up for repairs. This increased Wagner's lead again, and it may be said that from that time Lancia had no chance at the cup, or very little. Lancia's times were fast: 30:29, 29:34, 28:54, 28:18, 28:07, 32:42, 28:21, 28:39, 29:06, 29:00. His best lap was his fifth. His positions ranged as follows: Fourth, third, third, second, second, second, second, second, second, second. He was beaten by 3 minutes 18⅗ seconds, and for a long time was looked upon as the man Wagner had to beat to be returned winner of the Vanderbilt cup.

Vincenzo Lancia, as far back as 1899 and 1900 was chauffeur to Queen Helena of Italy, and in 1900 drove and won his first race, the Brescia. He won a first in Padoue in 1901 and also captured the Mount Cenis hill-climb the same year. He was in numerous other competitions before he tackled his first Bennett in 1904, in which he finished ninth. His hard luck in the Auvergne Bennett is still fresh in the public's mind as well as his misfortune in the 1905 Vanderbilt. In Cuba, too, he was up against it, while in this year's grand prix he bumped into more ill-luck. He scored one victory, though, this year by winning the Copa di Oro in Italy, a reliability contest in which he went through without suffering a single penalization for failure to be on time at the controls. Lancia is 25 years old.

No. 5—Lawwell in the Frayer-Miller

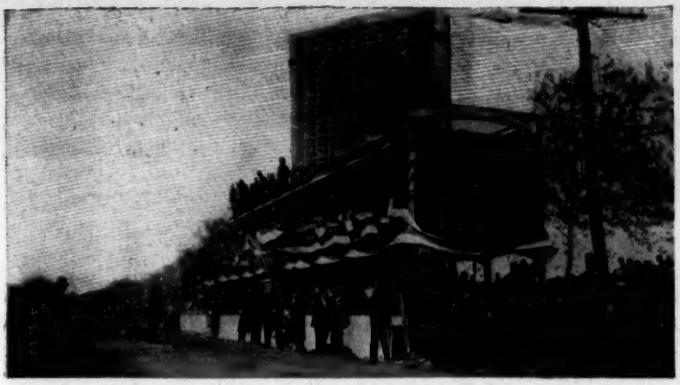
Lawwell had a fairly good start, but he had tire trouble at Jericho. He made the first lap in the fastest time which he made during the day, but the whole history of his run was a hopeless struggle with tires and an engine which continued to overheat all through the run. In the fourth round he fixed two tires at the Willet's road turn, and was delayed 17 minutes, but was pushing ahead when a chicken flew from the side of the road and landed fair and straight in the exhaust fan which decorates the front of the Frayer-Miller machine. This put the fan out of business and stopped proceedings so far as Lawwell was concerned. He was not disconcerted by the crowd, knowing by experience that the only thing to do was to run straight at the people and trust to what William K. Vanderbilt, Jr., used to call the "inborn common sense of the American public." Lawwell's times were as follows: 33:34, 66:40, 50:12, 40:03. Lawwell's positions were. Eighth, sixteenth, sixteenth, sixteenth. He was running at the close of the race and demonstrated that he was game to the core and was no quitter.

Frank Lawwell is new in the game and got into the eliminating trial through the withdrawal of F. Moscovics, who gave up his seat because of family objections. Lawwell has every appearance of being a good driver and made the most of his opportunities, despite the hard luck he played in. It is predicted he will be heard from again in road races.

No. 6—Shepard in the Hotchkiss

The hardest kind of luck seemed to pursue Elliott F. Shepard. After his accident in France it was expected that he at least would escape running over one of the spectators of the race on Saturday, but he turned out to be the victim of circumstances, and retired from the race after the sixth round, entirely broken down in spirit and ambition, although he had made a most creditable showing throughout the six laps which he ran. Shepard's car was in good condition and he made a good start, but had tire trouble during the first round in the back roads and again in the second round near Bull's Head. He had no further stoppages until the fifth round, when he stopped at East Norwich voluntarily for gasoline and oil and expected from that time to go right through and increase his position in the race as fast as possible. He was pursuing this course when the unfortunate fatality occurred at Krug's Corners. Shepard saw what appeared to be a clear road ahead of him and, according to the spectators, had no warning that Gruner, the man who was killed, was about to walk out and stand in the road. It will probably never be known whether Gruner was dazed or whether he failed to understand the situation. In fact, the theory has been advanced on the part of several who saw the accident, that to all appearances Gruner took this method of committing suicide. He was at the right side of the road just after the corner was turned and after Shepard had taken up speed for the straightaway, and where the crowd was very dense on the left side of the road. Shepard knew that in order to avoid the man he would have to run into the crowd on the left side of the road, and the results there would probably be worse for all concerned, as he would undoubtedly hit several people as well as wreck his car and kill himself. It was one of those instances when judgment has to be made very quickly, and Shepard, to escape the lesser of the two evils, ran full tilt at the man, who jumped back a little at the last second but not far enough to avoid the onrushing racing car. When the Hotchkiss struck Gruner, he was knocked about 20 feet and, according to doctors who examined him later, was instantly killed. Shepard knew that there was no use stopping and had hoped that the injuries to the spectator had not been fatal. He ran past the stand and as soon as he had an opportunity to stop away from the crowd below it, he did so and made inquiries. Failing to find out the status of the situation he ran on round to Bull's Head, where the telephone had carried the news of the man's death. Shepard at once withdrew from the race and, as soon as he had an opportunity, he drove to his training quarters, where he put the machine away and sent word to the sheriff that he was at his service if needed. Shepard was not arrested, as there could be no question of the legal rights of the contestants on the highway, at the time, nor

INTERESTED ROADSIDE SPECTATORS



TIMERS KEEPING SPECTATORS INFORMED OF RACE'S PROGRESS

of the liability assumed by spectators for their carelessness. Shepard's car ran well for the six laps. He had tire trouble at different points. His times for the six rounds were as follows: 32:26, 21:37, 30:55, 30:23, 33:53, 30:23. Shepard's positions at the close of the six laps were: Seventh, fifth, sixth, sixth, sixth, sixth. His fastest lap was the fourth.

Elliott F. Shepard, an American, is what might be termed a gentleman driver. He has long been interested in automobile construction and in 1894 started building a car, buying a patent for a two-cylinder motor. He exhibited the same year in the Paris show. Shepard's first racing experience was gained this year in the grand prix in a Hotchkiss. Shepard is 30 years old and was born on Long Island.

No. 7—Luttgen in the Mercedes

Luttgen had been accredited with the most daring system of driving, his work in the practice rounds having created the impression that he would take all chances at all times and places. He certainly did take chances, making the turns at breakneck speed and doing all in his power with a car which did not run as it should. Twice he was reported at the stand as being delayed at various points on the course with the machine "working badly." Luttgen had engine troubles and troubles with his magneto almost from the first. He worked as hard as he could to get the machine into shape and succeeded so well that the last lap he made was his fastest—30 minutes 18 seconds. But Luttgen could not hope to make up any large portion of the time he had lost, and when the race was called off he was only at the close of his eighth lap. Luttgen got a good start and seemed, in the gray morning light, to be going well as he floated away from the stand. But on succeeding rounds the poor working of the engine was very evident, some of his passages revealing the fact that only three cylinders were working. He said, after the race, that engine troubles and tires as well as fear of the crowds had been the cause of his delay. Luttgen's times for the eight rounds were: 34:32, 32:14, 33:16, 32:42, 32:04, 50:12, 40:32, 30:18. His positions at various times were as follows: Tenth, eighth, tenth, ninth, eighth, thirteenth, twelfth, eleventh. His best lap was his eighth and last.

William C. Luttgen, 29 years old, was a mechanic for Foxhall Keene in the 1903 Paris-Madrid race and also in the Irish Bennett. He was given a Mercedes to drive in the first Vanderbilt, going eight laps.

No. 8—Nazzaro in the Fiat

Nazzaro was the dark horse of the Fiat team. It was understood that he was elected to cut out the running for Lancia and that if the latter failed to make good he was to get in and win in the last few laps. This plan would have been a good one perhaps, if Nazzaro had not had so many tire and miscellaneous troubles during the first four rounds. His car ran well but he had difficulty in overcoming his scruples about running through the crowd and he had skids and bumps and loss of anti-skids until he had lost so much time that he never was able to catch up though he drove with great nerve during the laps when the tires were acclimated. Nazzaro looked very businesslike as he stood at the starting tape, and there were many hopes for his ultimate success, as was shown by the vocal interest taken in his start. He had a fairly good getaway but a comparatively slow first round. While there was no trouble he had to feel his way through the thronged roads of the course and only regained his nerve at the beginning of the second round, when his tire troubles began. He was stopped a considerable time at the Thomas corner with repairs to the wheels and replacements of tires during the third round and lost twelve or thirteen minutes at this point. The fourth lap saw more tire trouble, as did the seventh. With these exceptions, Nazzaro ran well, his closing laps being made in very fast time. This is the record of Nazzaro's laps: 30:41, 35:03, 41:24, 34:21, 29:21, 28:57, 37:49, 27:57, 27:26. His positions by laps were: Fifth, seventh, ninth, eighth, seventh, seventh, sixth, sixth, sixth. His best lap was his last. He was running when the race was stopped.

Felix Nazzaro, who is nearly 26 years of age, started as mechanic for Lancia in 1900. He was promoted to the wheel of a Panhard the same year and his first victory was scored in the Florence hill-climb in 1903. He became a Fiat driver the next year and was second in the Brescia and also second in the Mount Cenis hill-climb. In 1905 he was second in the Bennett, won the Mount Cenis climb, was sixth in the Brescia and sixth in the Vanderbilt cup. This year he was second in the grand prix and fourth in the Copa di Oro.

No. 9—Tracy in the Locomobile

Tracy furnished the most spectacular feature of the race. He did this by driving one lap in 26 minutes 20⅘ seconds, the fastest time made throughout the struggle. The effect of it was somewhat tantalizing to those jingoes who had hoped against hope that Tracy would be able to make some showing in an international way. It is perhaps not altogether well that Tracy did this, because it demonstrated the fact that he as a driver and the Locomobile as a racing car were able to do better than any other car in the race and made patent the obvious fact that it was the refusal of the Locomobile people to put removable rims on their car which played such a large part in their downfall. The Locomobile is like a charm and so far as is known there was utterly no trouble with the engine or car. But when one must spend from 10 to 20 minutes to have a tire replaced he cannot hope to compete with 3-minute rim replacements. Tracy was the great popular favorite of the start. The grandstand cheered him as he rolled to the tape and cheered him again when he got away finally, throwing the oiled dirt from under the rear wheels. But he did not succeed in negotiating the first lap before he had trouble with his anti-skid tires at Williston and after going 5 miles he lost his anti-skid bands again and was again delayed. Tracy had a little trouble with the crowd on the first lap and knocked down a boy, who was not injured at all. Tracy reached the stand, slowed down and proclaimed loudly to Referee Vander-

ONE OF CLEMENT'S ROADSIDE REPAIR STATIONS

BREAKING INTO SOCIETY A NEW WAY

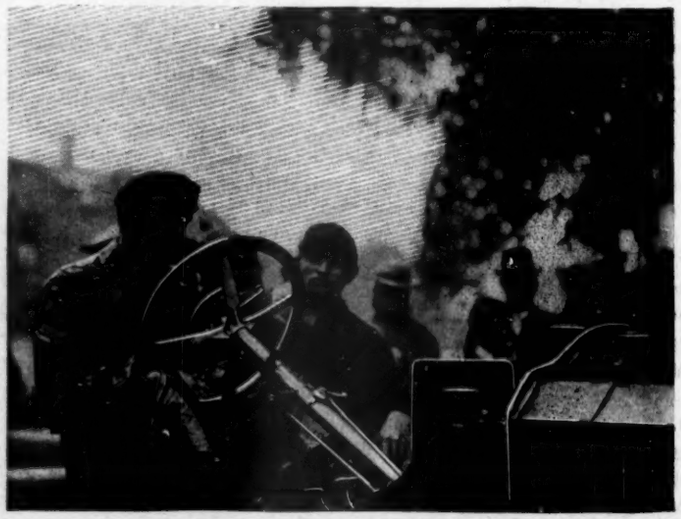
bilt that driving on the course was unsafe and that if the race was to be finished without accident the crowd must be kept back. Mr. Vanderbilt told him he would attend to the matter and waved Tracy on. An effort was made to telephone to all parts of the course to get the crowd back off the road, but this and succeeding movements of the same character were never altogether successful or did not remain so except for more than a brief time. In the second and third and seventh laps Tracy again had tire trouble which was varied at one time by a little carbureter trouble which delayed him near the hairpin turn for 2 minutes. It is said that during the third lap at Jericho he lost 7 minutes and then was unable to get all his tires inflated and went on with one flat one. In the fourth lap he removed the anti-skid bands entirely, losing very little time, as they were cut off with a knife. The effect of this seemed to be to permit Tracy to make faster time, for it was on the next lap that he made the sensational record, the announcement of which was received with cheers by the crowd. But he was unable to make good on any other round, as the tire trouble began again and continued consistently up to the close of the race. Tracy stated that in addition to the tire trouble the people on the course annoyed him greatly and prevented him letting out his car at full speed except on the back roads where the line of people was thin. His times were 38:48, 38:53, 34:51, 31:37, 26:21, 30:23, 40:26, 33:39. Tracy's positions at the close of the various laps were as follows: Thirteenth, twelfth, fourteenth, fourteenth, tenth, tenth, tenth, tenth. His fastest lap was his fifth, made in 26 minutes 20⅘ seconds, or at the remarkable rate of 67⅗ miles per hour. This speed, however, does not begin to touch the records made at last year's race, even with the greater difficulty of this year's course taken into consideration. He was running when the race was completed.

Tracy's hard luck in the matter of tires may be traced indirectly to the weather, and, for that matter, this is the case with other unfortunates so far as tire troubles are concerned. The rain of the day before had softened the surface of the road considerably and an early morning sprinkle had not helped matters. Then the heavy fog of the night, which lasted until nearly the starting hour, only served to keep the road soft and dangerous. On this account many of the drivers deemed it essential that non-skid tires should be used. Tracy, for instance, fitted his machine with leather non-skid tires. It is asserted that practically all the tire troubles that came to both foreign and American drivers was in the use of these tires in that they would not stand the strain under great speed. Such are the reports gathered at the tire stations. Tracy went back to flat tread rubber tires and then made his fast lap of 26 minutes 21 seconds in the fifth. While he drove slower after that it was unquestionably due to his fear of causing personal injury to spectators owing to the crowds on the course.

Joseph Tracy is regarded as the American standby in the road racing game. A clever engineer, he knows his car from the ground up. He was a member of the American team in the last Bennett, but he gained his greatest fame last year when he ran third in the Vanderbilt final, which made America second so far as countries was concerned and brought the cup race to this country after France washed her hands of it. This year he won the eliminating trial.

No. 10—Wagner in a Darracq

Wagner was a consistent winner from the first. He jumped out and held the fort against the most persistent of his rivals with a tenacity which equaled that shown by Hemery last year and his car behaved fully as well as did the Hemery car. He stated after the race that he had absolutely no trouble with it except in the matter of tires and that he made but three stops—once in the fifth for supplies and inspection, according to the schedule, once the eighth for oil and gasoline, and once in the tenth to renew his tires. The record of his times showed that he drove steadily at a high rate of speed during the other laps, there being little variation in the times in which the various rounds were completed. His best time was 27 minutes 22 seconds, but he made five laps in better than 28 minutes, and it was this consistent pounding at the time schedule that finally made it possible for him to win. When the short, squatty-looking Darracq, short of wheelbase and with its wedge-shaped radiator, drew up at the tape, it was plain that here was a car built for the roads of the day and that, barring the unexpected, it might be relied upon to give a good account of itself. Wagner was very cool and collected and betrayed no such nervous clutching at the wheel or other symptoms of stage fright as characterized the appearance of the other foreign drivers. He got away without jerk or spurt, but was going at full speed before he was out of sight of the stand. Wagner's strategic position in the race was a strong one and he knew it. Indeed, from start to finish, his driving showed the same careful headwork which was the feature of the performance of the Darracq team last year. The second appearance of Wagner at the stand was spectacular. He was leading Shepard, whom he had passed just above, and the latter was trying hard to hold to the swift pace which was being put up by the Frenchman. During the second lap Wagner gained on all his rivals, but the third lap, being slower, allowed the others to creep up again. At one time he was closely pushed by Lancia, but the Italian was not able to head his speed and Wagner's place at the front was again undisputed. The short wheelbase of the car allowed Wagner to drive at a fast rate around the turns and on the straightaways he let it out so that the machine fairly flew; on the back stretches the Darracq seemed to travel faster than any of the other cars. Wagner delighted in the long, winding curves and was at a decided advantage on the Roslyn and Manhasset roads. He took the hairpin turn at a pace which amazed the onlookers. His stops for supplies according to the



DURAY AT WHEEL OF DE DIETRICH

HOMEWARD BOUND AFTER THE RACE

schedule arranged before the race showed the admirable control the man had over himself. He did not fume or fret over necessary delays and went about helping where he could. Then he was away again with a smile with the Darracq running as if on a testing block. The tire troubles in the tenth round which left it an open question for a while whether he had held the lead or relinquished it to Lancia did not seem to worry him more than the specified stops for supplies. He kept his head throughout and made few false moves. This had as much to do with the winning of the race as the mechanical element of dependability in the car. The times made by Wagner were 28:26, 27:56, 28:17, 27:42, 32:09, 27:22, 27:42, 30:45, 27:54, 33:58. His position was first from the start. His best lap was his sixth, in 27:22.

Louis Wagner is an out-and-out Parisian, having been born in the gay French metropolis November 2, 1881. He was a contestant in last year's race as a team mate of Hemery's, but met with an accident in the third round. His first racing was done in the Darracq company's light and middle-weight racers, and in the first few years of the present decade he broke all existing records in his class, the most notable being the winning of the 298-kilometer race for light cars run over the historic Belgium Circuit des Ardennes course, on June 23, 1903, covering the distance in 3 hours 55 minutes 22½ seconds, or 32 minutes ahead of his nearest competitor. In the same fall he also won the French Chateau-Thiery and Gaillon races, which were run up a steady incline. During the greater part of the year 1904 Wagner spent his time in the French army, but by securing special leaves of absence he participated in several speed contests with such remarkable success that the Darracq company selected him to drive one of its powerful heavy-weight cars for 1905. Wagner's record for 1905 was one continuous series of successes. He won first place in the speed contests held in 1905 at Ostend, Doullens, Scheveningue and Liege with a heavy-weight car. In the same year he also drove a light-weight car in two races and won both events for that class, namely, the Circuit des Ardennes and at the Liege meeting. At the Ostend meeting he won the 10-kilometer event in 4 minutes 8 seconds or at the rate of 90.44 miles an hour, over a common dirt road. It was, however, in the eliminating trials over the French Auvergne course in June, 1905, that Wagner became famous. With an 80-horsepower Darracq he was well in the lead up to 500 kilometers, 310 miles, and when this distance had been attained he was as much as 35 minutes ahead of Thery, the eventual winner of the race, but was put out by tire troubles. Notwithstanding this fact he finished fourth, only 13 minutes after the winner. In the Circuit des Ardennes road race on August 7, 1905, he created a new world's record of 100 kilometers—62.14 miles—traveling the distance in 55 minutes 18 seconds, an average speed of 67.3 miles an hour, breaking the former record of 57 minutes 51 seconds. As if to emphasize his great victory of last year, he entered the 1906 Ardennes and won the prize for the fastest 100 kilometers in handy fashion, covering the distance this time in 52 minutes 49 seconds, an average of 113½ kilometers or 72 miles an hour, the fastest time ever made in any European road race.

No. 12—Cagno in the Itala

Cagno, in the Itala car, which made its American debut at the same time as did the driver, was totally unprepared for the condition of the roads and the habit which the Long Island crowd showed of crawling in on the track. He said that this was responsible for his failure to make faster laps and that his car ran well throughout, although there were the ever-present tire troubles to be dealt with. In the second round he had tire trouble at East Norwich and at Mineola and Westbury avenues, and this made the second lap a very slow one. He had further trouble in the fifth lap of the same character, and in the ninth—the last which he finished. But, all things considered, even with these allowances, it must be said that Cagno did not succeed in making time which was worthy of the record of his car or his reputation as a driver. This will be readily seen by glancing at the figures: 35:17, 36:20, 32:28, 33:13, 38:20, 30:59, 32:09, 31:44, 35:58. His positions in the race were as follows: Eleventh, tenth, eighth, seventh, ninth, eighth, ninth, seventh, seventh. His fastest lap was his sixth. He was running at the time the race was called off.

Cagno is another one of the Italians who are always doing something. He was over last year for the Vanderbilt and gained fame this year by capturing the touring car race in Italy.

No. 14—Haynes in the Haynes

Those who predicted that the Haynes car would not be well driven because there was a change of drivers from the eliminating trials suffered an agreable surprise. John W. Haynes, who held the wheel of the Haynes car, drove with admirable consistency along a schedule of his own which, while it could not be expected to have any chance at the cup, still made an admirable showing for the Kokomo product. Haynes had comparatively few engine troubles, but had his share of tire mishaps, which, on account of the lack of removable rims, took such long periods of repairs from the total running time that the rounds were made in very slow time. A study of the records, however, shows that the running of the Haynes was fairly consistent and was all that could have been expected from a touring car of its capacity. The advisability of using such a low-powered car in a big competition is, of course, a question which is open to considerable argument. Considering it was allowable, very little fault can be found with the Haynes performance. The driver had only one accident which merited more than passing notice, which was the hitting of a telegraph pole at East Norwich, on the sixth lap. The pole was hit a glancing blow, however, and luckily the hub-

ASKING VANDERBILT TO MAKE A SPEECH

cap warded off damage and the car was able to proceed without more than a momentary delay. The times are as follows: 45:18, 34:35, 34:15, 44:27, 35:59, 47:31, 39:23. His positions were: Fifteenth, fourteenth, thirteenth, fifteenth, fifteenth, fifteenth, fourteenth. The fastest lap made or it might more properly be said, the least dilatory round, was the third in 34 minutes and 15 seconds. He was still running at the close of the event.

John W. Haynes drove his first race last Saturday. He has had plenty of road experience, though, and this stood him in good stead when it came to driving the Haynes in the big event.

No. 15—Clement in the Bayard

One of the characteristic features of the race was the fact that a number of international drivers of repute who were expected to provide spectacular performances did not materialize in these roles and Clement was one. His nervy driving in the race of 1904 had led many to suppose he would display nervy and daring traits in the race just passed. Clement, like many of the other drivers, found it necessary to be chary in his methods. The long wheelbase on his car had considerable to do with the caution displayed by the scion of the great French house in the manner in which he took the sharp turns and rolling curves of the Nassau circuit. But his reticence to mow down the crowd also figured in the cautiousness with which Clement manipulated his car. He had tire trouble in the first, second and fifth rounds and in the fifth was delayed more than 5 minutes by taking on supplies. He held fifth position steadily from the third round on and although he tried hard to better himself was unable to do more than raise himself one point in the final outcome and closed with fourth place to his credit. Clement's times by laps were 31:21, 33:31, 28:44, 28:18, 36:22, 29:22, 28:10, 28:18, 29:32, 28:11. His positions were sixth, sixth, fifth, fifth, fifth, fifth, fifth, fifth fourth, fourth. He was among those who were still running at the time of close of race.

Albert Clement, 21 years old, is a son of the manufacturer of the Bayard and has been driving ever since he could climb into a car. It was in 1903 that he took part in his first competition, driving in the Mount Ventoux hill-climb. He also took part in the Taunus Bennett, but did not finish. He was going well in the Auvergne Bennett when he lost a wheel. He also drove in the 1904 Vanderbilt. His greatest showing was in the grand prix, in which he finished second after giving Szisz the warmest kind of an argument.

No. 16—Dr. Weillschott in the Fiat

Dr. Weillschott was unable to finish one lap on account of the encroaching crowd. It was at Manhasset, as he approached the hill, that the tendency became most manifest and Dr. Weillschott had to take to the ditch and down an embankment to avoid running over two young bicyclists who were in his path. The boys stood beside their bicycles and only jumped away when the driver was close upon them. He had to throw his wheel well over, with the result that the car was on its way to the ditch before it could be righted. The two boys were struck and received injuries to their legs which were not serious enough to cause pain. Their bicycles were demolished and the broken frames and wheels became entangled in the machinery of the Fiat. But driver and mechanic were unhurt when the car came to a standstill in a field. Up to the time of accident Weillschott had not had delay and was driving well. He made speed on the turns and on the straight stretches and would undoubtedly have been among the hard contenders had not the very worst of driver's luck put him out of the running.

Dr. Weillschott is a director of the Fiat company and this year came up prominently in several of the big competitions on the other side of the Atlantic.

No. 17—Christie in the Christie

Walter Christie made very fair time with the car which he had substituted for the big racer specially built for the Vanderbilt which went to grief before the eliminating trial. But, like Haynes, the Christie car was not speedy enough for the company it was in and while it ran quite consistently was never in the race as a prominent factor. The driver, though accustomed to American road race conditions, was much annoyed at the manner in which the people pressed over the road. He said after the race that he could have given a much better account of himself under European protected conditions, while admitting that his car was not fast enough. On the second round Christie's tire burst at the Thomas corner and on the fourth and fifth rounds he had wiring troubles. Also he had other tire troubles on nearly every round which, fortunately, did not delay him long on account of the removable rims with which he had equipped the little blue car. He took the turns with his usual care, but could not always get the speed out of his car which he desired. The record for Christie's laps was as follows: 34:07, 33:39, 35:16, 45:35, 51:42, 35:00, 35:38. His positions were ninth, ninth, seventh, eleventh, fourteenth, fourteenth, thirteenth. His fastest lap was his second, 33 minutes 39 seconds. He was still running at the close of the race.

Walter Christie comes in the gentleman driver class. A man of means, he finds great enjoyment in exploiting his front drive car which he himself designed. On the beach he is a star of the first magnitude and in the road races in which he has driven he has always made a game struggle.

No. 18—Duray in the de Dietrich

Duray had tied to the rear portion of his racer a little china pig with a complacent smile on its porcelain features. The mascot rode bravely through his wild race and was still hanging to the frame when the Frenchman finished. Duray was a much-feared competitor. He was considered a formidable candidate and was viewed with much interest at the starting line. Duray drove steadily and was not delayed except by scheduled stops for supplies and inspection in the fourth, sixth and eighth rounds. Duray and Lancia were close competitors for second place. The former took more chances on curves than any of the drivers and his dashes at the Norwich corner, the hairpin and Krug's were acts to wonder at and admire. Once, on the fourth lap, as he turned the hairpin, he almost lost his mechanic. The latter lost his balance and caught hold of one of the three spare tires and rims which Duray carried. The strap which held this came loose and the mechanic was in danger of falling from his seat when Duray reached out and grabbed him. He did this with his left hand, steering the dangerous hairpin turn with his right. It was small wonder that a cheer went up from the throng on the course. At the close of the second lap Duray was in second place and he held this position in the next lap, when he dropped back to fourth place. By daring driving he was able to get back to third place and kept pressing Lancia hard. Lancia and Duray were tied in the end of the seventh lap, each man having taken 26 minutes 43⅘ seconds to make that distance. Duray was stopped at his supply depot on the eighth round according to previous orders from the factory and all four of the tires on his car were changed, though every one was in perfect condition. This took 4 minutes to accomplish and though Duray drove fast after that he could not make up the whole 4 minutes' lead which the popular Italian had obtained while the tires on the Ardennes circuit winner's car were changed. Duray stopped twice besides the time on the eighth round. Once was in the fourth round, when four new tires were put on his car, and the other time was when he stopped for oil and water in the sixth round. The bottom of Duray's seat was jolted out in the race and he finished it on an impromptu cushion of straw. Duray said that he was sorry that the race had not been 50 or 100 miles longer, as he thought he would have been able to overhaul the flying Wagner on that much additional distance. The long wheelbase of his racer, 116 inches, made it a hard task for him to make time around the many turns on the circuit. Duray's time record ran as follows: 30:18, 28:25, 28:19, 32:58, 28:26, 29:46, 28:06, 31:09, 28, 27:52. His fastest lap was his last. He was beaten for the second place by 15 1-15 seconds.

Arthur Duray is 24 years of age and started his athletic career as a bicycle rider. He first drove a motor car, a Gobron Torpille,

in the Spa Criterium, in 1901. He competed in the Paris-Vienna race, the Ardennes and the Chateau Thierry hill-climb that year without winning. He drove the Gobron in the Paris-Madrid and Ardennes in 1902 and the next year joined the Darracq forces, establishing a 100-kilometer record on the Ardennes circuit. Among the other events in which he competed was the Bennett over the Auvergne course, in which he finished sixth. This year, in a de Dietrich, he was seventh in the grand prix and winner of the Ardennes circuit and was a Vanderbilt favorite.

No. 19—Fabry in the Itala

Fabry's unhappy condition was that of an experienced driver who could not get his car going properly. The total depravity sometimes displayed by motor cars was seen at its zenith in Fabry's Itala and the driver himself was afraid of the crowds. This was not at all surprising when it is remembered that the Italian and French race roads are kept entirely clear. Fabry simply had trouble from the time he started until he finished his sixth round, by which time the race had adjourned. It is idle to attempt to record his delays or why they happened. Another time both car and driver will probably have a better chance under better conditions when we can expect developments, for neither the Itala cars nor their drivers are subjects for sneers. Fabry's time: 37:21, 36:17, 38:05, 33:49, 39:13, 38:49. The best lap was the fourth in 33:49. Fabry was still trying to coax the car into activity when the race closed.

Fabry has always been put down on the dope book as one of the best of Italian drivers and he has made good that reputation. On the other side of the water he is always a contender in the big races.

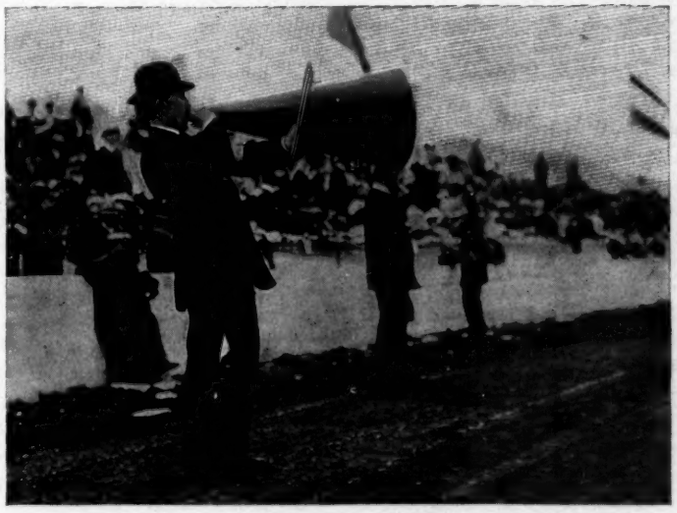
All of these facts mentioned in the foregoing were not known to the spectators after the race. They simply had a vague idea of cars whizzing by them, of numbers posted on a big board, Prunty's vague announcements and the one vivid idea impressed on them—that Wagner, representing France, had won, that Lancia had been beaten and that the Americans were among the also rans. That was enough for the average on-looker. He had seen the event about which the papers had been talking for so long and he was satisfied. He had rubbed elbows with the aristocrats, he had become somewhat initiated into the mysteries of motoring and he began to have thoughts of a dinner awaiting him.

So after the race was over came the rush for home. With the word from the telephone men that the referee had called off further racing the roads were filled in an instant. Automobiles left their parking spaces and squatting places. Wagons abandoned their stations. Cyclers mounted their wheels. Foot-passengers hurried in droves to the nearest railroad station.

It was nightfall before the trains got all the people back to town. From dinner time to midnight the motor cars deposited their loads at the hotels and restaurants. It was morning before New York was allowed to forget that October 6 was Vanderbilt cup day and that the classic had been run and won.

PRUNTY'S MEGAPHONE MURMURINGS

THOSE who imagine the announcer tells the story of the race should disillusionize themselves at once. Only a small part of the happenings on the big circuit are telephoned to the stand and of these messages only a fraction get to the announcer's lips. This is a faithful account of Peter Prunty's announcements, without the time records. It will surprise most of those who were present by its meagerness and lack of detailed information:



PRUNTY, THE VANDERBILT CUP RACE ANNOUNCER

At 6:08 o'clock—"The race will be started at 6:15, instead of 6 o'clock."

At 6:38—"Car No. 1 slightly delayed at East Jericho; left 5-mile post at 6:28."

At 6:37—"No. 19 running very badly at Jericho."

At 6:38—"It is raining hard at Mineola."

At 6:40—"No. 7 reported working very badly at corner of Mineola and Westbury avenues."

At 6:43—"No. 19 passed East Norwich at 6:42:50."

At 6:50—"No. 9 stopped to change non-skid tires at Willistown."

At 6:54—"No. 9 lost tire at Willis road turn."

At 6:55—"No. 16 laid up at foot of Manhasset hill; no particulars."

At 6:56—"No. 4 changed tire at East Norwich."

At 7:07—"No. 16 broke steering gear at 20-mile post and stopped at Krug's corner."

At 7:08—"No. 12 stopped at East Norwich."

At 7:10—"No. 1 put on three tires; just left Albertson."

At 7:16—"No. 1 passed No. 14 at Jericho turn."

At 7:17—"No. 17 burst tire at Thomas' turn and started after replacing it."

At 7:18—"No. 5 has tire trouble at Jericho."

At 7:20—"No. 12 stopped half a mile below the corner of Mineola and Westbury avenues."

At 7:22—"No. 1 lost tire at Thomas' turn."

At 7:24—No. 1 lost another tire at Thomas' turn."

At 7:26—"No. 5 changed two tires at Jericho; lost 15 minutes."

At 7:26—"No. 12 has steering gear trouble at Mineola and Westbury avenues."

At 7:32—"No. 7 passed Jericho running very badly."

At 7:50—"No. 16 went over bank at Manhasset; no one hurt, but car is out of race."

At 7:51—"No. 39 has puncture at Jericho, and left Jericho with one flat tire."

At 7:58—"No. 9 lost 7 minutes at Jericho with tire trouble. He's all right now."

At 8:04—"No. 8 stopped at Thomas' turn."

At 8:05—"No. 3 and No. 4 passed the hairpin turn together."

At 8:33—"Six cars have finished four laps."

At 8:35—"No. 6 stopped at East Norwich for gasoline and oil."

At 8:41—"Six cars passed 25-mile point in following order—No. 2, No. 3, No. 12, No. 8, No. 4, No. 7."

At 8:43—"At 8:41 No. 5 passed Willetts road turn, after fixing tires."

At 8:45—"No. 5 delayed 17 minutes at Willets road turn to change two tires."

At 9:25—"The fastest round in the race was made by No. 9 in 26:21 on his fifth lap; this time is the record for the course."

At 10:11—"No. 3 passed No. 10 at the 10-mile post."

At 10:20—"Three cars have finished the eighth lap."

At 10:35—"Five cars have finished the eighth lap."

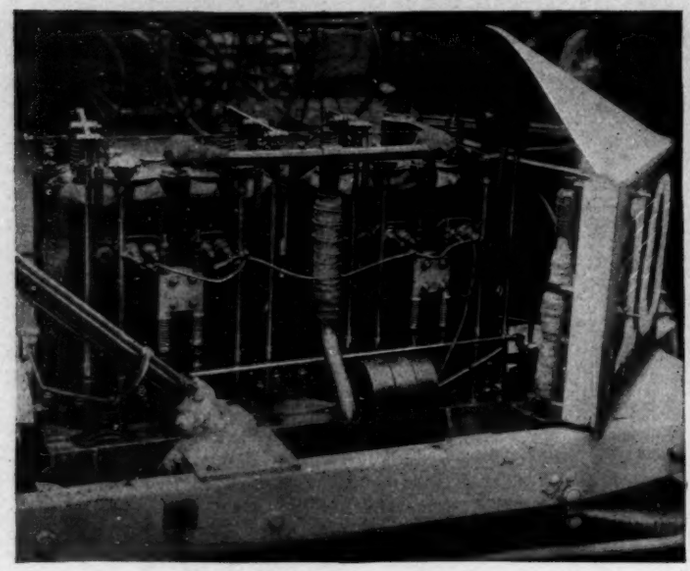
At 10:36—"At 10:30 No. 14 hit a telegraph pole at East Norwich and went on."

At 10:52—"No. 10 has tire trouble at Bull's Head."

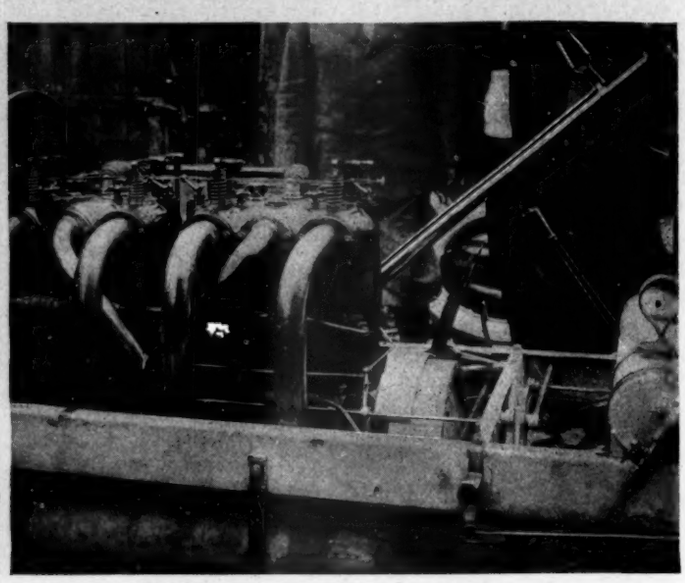
At 11:05—"No. 10 just passed the second turn at Lakeville."

At 11:14—"No. 10 wins by 3 minutes 18⅖ seconds."

FOREIGN CARS MECHANICALLY VIEWED



CAMSHAFT SIDE OF THE DARRACQ



INLET AND EXHAUST SIDE OF THE DARRACQ

NEW YORK, Oct. 6—The weighing in of racing cars is more or less of a joke—to anybody except the contesting drivers and those directly interested in the cars that are to be put through the process. There seems to be a rather flexible rule as to what shall and what shall not be weighed, as, for instance, a driver is permitted to remove seat cushions, tire brackets, floor boards, tools, etc., and then replace these articles for the race. Even with all this removal process some of the cars had trouble to get down to 2,204 pounds. The weighing began about 10 o'clock, with S. A. Miles and Henry Ford behind the scales and Georges Dupuy and E. T. Birdsall on the outside. Chairman Thompson was on hand and occasionally helped sweep the scales in order to maintain a balance. About the time the weighing began the rain commenced to fall and the longer a car had to stand in the open the heavier it became and the more difficult the job of getting it down to correct figures. It was finally determined that a car would hold a considerable amount of water and that the tires would absorb no small quantity. Therefore when a car came within a couple of pounds Chairman Thompson decided the car ought to pass, and it did so.

Most of the cars had little difficulty in getting within the limit of 2,204 pounds, but others had to be put through a scaling process. This was particularly true of Jenatzy's Mercedes, which registered 2,260 pounds, or 56 pounds too much. Then the magneto was removed, the floor boards thrown out and the tire carriers taken off. Still it was overweight some half dozen pounds. The German shook his head, talked to the officials and to himself and wondered. He had a certificate of weight from abroad and believed American scales bad things. He and a mechanic went at it again and by removing the oil from the crankcase and the pan under the motor he got inside the weight. After that he proceeded to put back all the things that had been removed. The Fiats came off the scales without being questioned, Lancia's car being 4 pounds lighter than those of Nazzaro and Weilschott, or 2,200 pounds even.

Duray seemed up against a hard proposition in getting his de Dietrich down to weight. It was finally discovered the car had tire carriers brazed on and that they could not be removed without the aid of a cold chisel. They were necessary articles and after much jabbering on the part of Duray and a little consultation with Mr. Riker, of the technical committee, it was decided to allow 12½ pounds for the tire carriers and weigh the car in after the race with the carriers removed. This let the de Dietrich in. The American cars had no great amount of trouble in getting in, for they had been passed by the same committee and had been weighed on the same scales. There was a little cleaning of tires and removal of magnetos, Tracy's Locomobile scaling exactly 2,204 pounds, Christie being way below the limit and the Haynes being a pound light. Wagner's Darracq was down to an even 2,204 pounds, but the Hotchkiss of Shepard was well overweight and required the removal of all loose parts to bring it down. After the cars had been weighed in the Roberts Thomas car was weighed to hold as an emergency rig should anything happen to Le Blon's car before the start of the race. In order to prevent any possibility of substitution Messrs. Miles and Ford, of the weighing committee, tagged each contesting car with railroad seals and with a card that could be seen by the officials while the car might be passing. This card was sealed also, so that the presence of the card was necessary at the weighing out, which took place immediately after the race. As soon as the weighing had been completed the cars were given a test for their braking efficiency, each being required to slide the wheels. Then the drivers had to show that the cars were fitted with reverse gears, when they were given an O. K.

"We are putting as careful work into the manufacture of our touring machines as the French builders are, but we are not as yet using as high-grade material as they are," said an American builder while the excitement of the race was at its height and the representatives of Italy and Germany were vainly attempting to wrest from Wagner, who seemed at that time, and as was the case later, a sure winner. This statement coming from the maker of one of the best-known American machines carries weight, particularly so as each season engineering representatives of this house make annual inspection tours of the European factories looking for everything latest in design as well as the most approved methods of workmanship. "We do not put as good materials in as do the French, Germans and Italians. We cannot buy the grades of material that the Frenchman, the German and Italian use, our steel trust does not make such high-grade products. Racing cars are American throughout; in them we cannot use foreign metal."

This confession of the American builder recalls another confession regarding European superiority and which confession was voiced while the race was in progress. A domestic manufacturer of patent leathers narrated how in the infancy of the patent leather trade American makers went to France and studied the methods of manufacture and even bought raw stock there, bought machinery for making the finished product there and then at home could not make a product that would stand side by side with the French article when it came to the exhibition booth. The American makers of patent leather kept

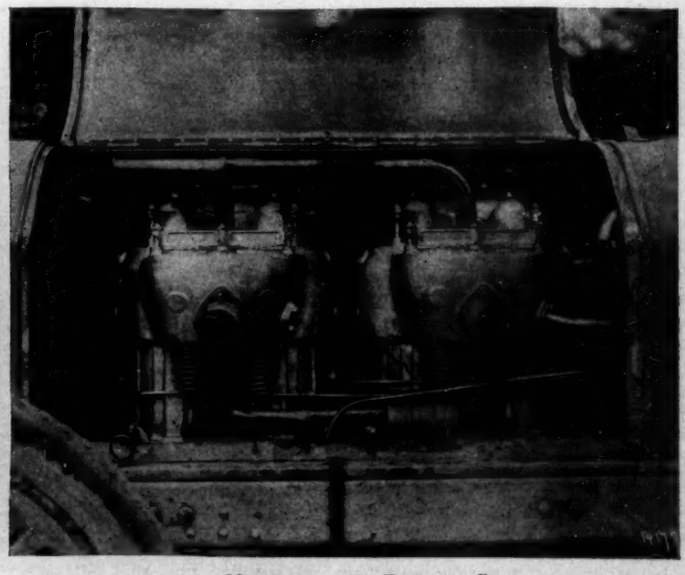
on trying and today they have a superior article to the Frenchman and are selling their goods in the very center of Paris and other French metropolis. The American motor car builder can take heart from this. We have been measuring our racing strength with the best of Europe for but three seasons. What will the story be at the end of the next three, if our manufacturers keep on working steadily? What expert drivers will we then have? What more enduring tires?

Little attention is now paid to the once potent argument, "Racing cars are monstrosities, freaks, without the semblance of a touring car part, and fail to promote the progress of car building." Occasional peeps beneath the bonnets at weighing-in stations have shown the falsity of such accusations. Three or four-speed selective gearsets are now as standard racing equipments as they are parts of touring cars, and the motors in most respects are touring car duplicates except for carrying the valves in the heads as practiced by most racing designers, while the valves are not so positioned in some of the stock models.

In a resume of the five cars that completed the ten laps of the race, Wagner's Darracq deserves premier attention, not only because of its commendable performance in Saturday's race but also because it was the winning car 1 year ago, when Hemery carried off the honors. Wagner's car is a little machine. One observer at the weighing-in station called it an Autocar runabout without a body. The comparison was a little far-fetched but when considered that this speed marvel has but a 96-inch wheelbase the size becomes more realistic. Its tread is 53 inches—3½ inches less than that used on American machines. Both of these measurements, 96 inches and 53 inches, are chapters in the winning story—a car with short wheelbase negotiating the eleven turns of the course much quicker than one of 115 inches and the narrow tread aiding in this regard. Wire road wheels, a feature of Wagner's racing car, recalls the name of S. F. Edge, the father of motoring in Great Britain, who has for so long sworn by this type of wheel and has seen wheels of this build land the big Napiers in first positions in hill-climbs and beach races. Using tangent spokes, of heavy gauge, gives a wheel specially adapted to withstand lateral strain of corner-turning, but has not such a resilient character as the artillery wood type. The Darracqs have always been leaders in frame construction, having introduced years back a pressed steel frame with integral pans for carrying the motor and gearset. It is not surprising then to find in Wagner's car graced by up-turns over the back axle, allowing of prolific back spring action and still giving a low center of gravity to the motor and gearset. Common sense cannot be misinterpreted in making the front axle of I-beam section and having it straight from spring seating to spring seating. The center drop in an axle looks nice, but why use it on a racer—the course is smooth, and the flywheel safe. You cannot get away from the V radiator on this car; it is everywhere irresistible, cutting the air as an arrow on approach and yet giving free passage to the air drafts to hit the cylinders. It is a horizontal tube affair, of twelve tubes each bent in V fashion with return unions between the ends of adjacent pipes necessitating the water traversing the entire length of tubing in its course outside of the waterjackets. So great is the confidence in this radiator that the air fan is dispensed with, but a pump used for forcing the water current. Besides novel cooling the Darracq has novel lubricating. The force feed oiler is replaced by a 3-gallon tank carried crosswise on the footboard at the driver's heels, from which oil flows by gravity or is sent by plunger pump to the motor crankcase and other essential places. The Darracq motor is not so formidable as might be expected. It has its cylinders cast in pairs, with intake and exhaust valves side by side in the cylinder heads and operated through roacher arms actuated from a single camshaft on the right side the shaft also taking care of the push rods for the low-tension, make-and-break ignition. One camshaft for three duties is simplicity. In French its bore and stroke are 180 and 140 millimeters, respectively. Translated these become 7.07 and 5.5 inches, not so great when you remember that several of the cars had 7¼-inch bore and 6-inch stroke. The rating of 100 horsepower is according to the conservative French system. On the left you could not escape the large-diameter intake and exhaust pipes, the former a simple Y and the latter straight tubes uniting with a large cylindrical casing, or muffler, beneath the engine pan. Renault set the pace for large pipings and many are following. The water enters the jackets beneath the valves at the left and exits from the right top, its pipes, too, are large. The low-tension magneto is gear-driven at the right, it has a single wire to the buss bars and thence to the make-and-break parts. The clutch is an old-fashioned cone with a leather facing, the transmisison has three forward speeds, the drive is by cardan shaft and the brakes for emergencies are within the back hubs. On the driveshaft back of the flywheel is a pedal brake. It is a heavy band, broad and deep, with a radical reinforcing flange around the outside. The springs were wrapped with tire tape—it holds the leaves together and supports them, the spark and throttle control are on the pillar beneath the hand wheel, the Truffault-Hartford shock absorbers are used all around and on the scales the weight recorded was 2,200 pounds.

Lancia's Fiat gets its power from four cylinders with 7.07-inch bore and 6.28-inch stroke. The car has many Mercedes traits, long wheelbase, 110 inches, double side chain drive, make-and-

MERCEDES FROM INTAKE SIDE



MERCEDES FROM EXHAUST SIDE

SUMMARY OF THE IMPORTANT MECHANICAL DETAILS OF THE FRENCH, GERMAN,

Race No.	Car	Entrant	Club	Made by At	Owner	Driver Nationality	Mechanic	Weight Lbs.	Rated H. P.	Bore & Stroke	Ignition	Clutch	Drive
1	Thomas	C. A. Coey	Chicago Automobile Club	E. R. Thomas Motor Co. Buffalo, N. Y., U. S. A.	Entrant	Hubert Le Blon French	Marius Amiel	2218 *	115	7½ x 6 inch	High ten. mag.	Cone	Side chain
2	Panhard	Panhard & Levassor	.....	Panhard & Levassor France	George Heath	George Heath American	.....	2218 *	120	180 x 185 mm.	High ten. mag.	Cone	Shaft
3	Mercedes	Robert Graves	Deutscher Automobile Club	Daimler Motoren Gesellschaft Germany	Entrant	Camille Jenatzy Belgian	.....	2204	120	146 x 180 mm.	Low ten. mag.	Mult. disk	Side chain
4	Fiat	Hol-Tan Co.	Automobile Club D. Turin	Fabrica Italia Automobilia Turin Italy	Entrant	Vincenzo Lancia Italian	Ajassa Battista	2200	100	180 x 160 mm.	Low ten. mag.	Double spring band	Side chain
5	Frayer-Miller	W. J. Miller	Columbus Automobile Club	Oscar Lear Automobile Co. Columbus, Ohio, U. S. A.	Oscar Lear Automobile Co.	Frank Lawwell American	E. C. Eckhard	2206 *	110	7¼ x 6 inch	High ten. mag.	Expanding band	Shaft
6	Hotchkiss	Elliott Fitch Shepard	.....	..... France	Entrant	Elliott Fitch Shepard American	Charles Lehmann	2206 *	130	180 x 160 mm.	High ten. mag.	Cone	Cardan shaft
7	Mercedes	George McKesson Brown	Deutscher Automobile Club	Daimler Motoren Gesellchaft Germany	Entrant	George Luttgen German	.....	2.07 *	120	146 x 180 mm.	Low ten. mag.	Mult. disk	Side chain
8	Fiat	Hol-Tan Co.	Automobile Club D. Turin	Fabrica Italia Automobilia Turin Italy	Entrant	Felice Nazzaro Italian	Fagnann Antonia	2204	100	180 x 160 mm.	Low ten. mag.	Double spring band	Side chain
9	Locomobile	S. J. Davis, Jr.	Automobile Club of America	Locomobile Co. of America Bridgeport, Conn., U. S. A.	Locomobile Co. of Ameri a	Joseph Tracy Irish-American	A. L. Poole	2204	90	7¼ x 6 inch	High ten. mag.	Cone with pins	Side chain
10	Darracq	A. Darracq & Co.	.....	A. Darracq & Co. France	Entrant	Louis Wagner French	Edgar Vivet	2200	100	180 x 140 mm.	Low ten. mag.	Cone leather faced	Shaft
12	Itala	Itala Co.	Automobile Club D. Turin	Itala Co. Italy	Entrant	Eminio Cagno Italian	.....	2204	120	185 x 155 mm.	Low ten. mag.	Mult. disk	Shaft
14	Haynes	Elwood Haynes	Chicago Automobile Club	Haynes Automobile Co. Kokomo, Ind., U. S. A.	Haynes Automobile Co.	John W. Haynes American	William Clarke	2201	55	5¼ x 6 inch	Battery & mag	Clamping band	Shaft
15	Bayard	Sidney B. Bowman	.....	A. Clement France	A. Clement	Albert Clement French	Gerge Allazi	2191	125	160 x 160 mm.	High ten. mag.	Clement disk type	Shaft
16	Fiat	Hol-Tan Co.	Automobile Club D. Turin	Fabrica Italia Automobilia Turin Italy	Entrant	Dr. Elito Weilschott Italian	.....	2206 *	100	180 x 160 mm.	Low ten. mag.	Double spring band	Side chain
17	Christie	Walter Christie	Automobile Club of America	Christie Iron Works New York, N. Y., U. S. A.	Entrant	Walter Christie American	Louis Strange	1823	50	5⅝ x 7 inch	Batteries	Cone	Direct front axle
18	De Dietrich	Societe Lorraine Des Anciens Establissement de Dietrich et Cie.	.....	Societe Lorraine Des Anciens Establissement De Dietrich Luneville, France [& Co.	Entrant	Arthur Duray French	.....	2215 *	130	180 x 160 mm.	Low ten. mag.	Mult. disk	Double chain
19	Itala	Itala Co.	Automobile Club D. Turin	Itala Co. Italy	Entrant	Maurice Fabry Italian	.....	2204	120	185 x 155 mm.	Low ten. mag.	Mult. disk	Shaft

break igniting spark, spiral spring clutch, honeycomb radiator, I-beam axles, differential shaft and rear hub brakes, and four speed selective transmission. The story of the motor is here limited, through not being able to gain access to it, but undoubtedly the use of valves in the head with both sets worked from a single rocker arm for each cylinder remains as heretofore. The car weighed in at 2,200 pounds, being, as it will be seen, one of the lightest ones.

Little can be said about the Duray de Dietrich, which finished 16 seconds behind Lancia. When one side of the motor bonnet had to be raised the mechanic covered the motor with a canvas. Photographers were barred and those looking around were quietly, and Frenchly, told to keep back. The car has, however, cylinder measurements of 7.27 and 6.28 inches for bore and stroke, that rule of having the bore about 1 inch in excess of the stroke ruling. The car has a phenomenally narrow tread, 51.2 inches, being more, however, than in the Bayard, which measures but 50 inches. An innovation exists in the multiple disk clutch, a cone one previously being used. Drive is by side chains, the radiator is tubular, ball-bearings carry the road wheels, jackshaft and transmission-shafts, the gearset of selective build has gears for four forward speeds and is unique in having a universal joint in each half of the jackshaft, that is between the differential and the jackshaft sprocket. Low-tension igniters are carried on the cylinder heads. The car like all other foreign ones used detachable rims, it has a trussed steel frame, carried shock absorbers and has yoke steering knuckles with the tie rod in rear of the axle. Mechanical intake valves are in the bottom of ports on one side and intakes mechanically operated are similarly located on the other side of the motor, two camshafts being needed for operating the set, one shaft working the igniters also.

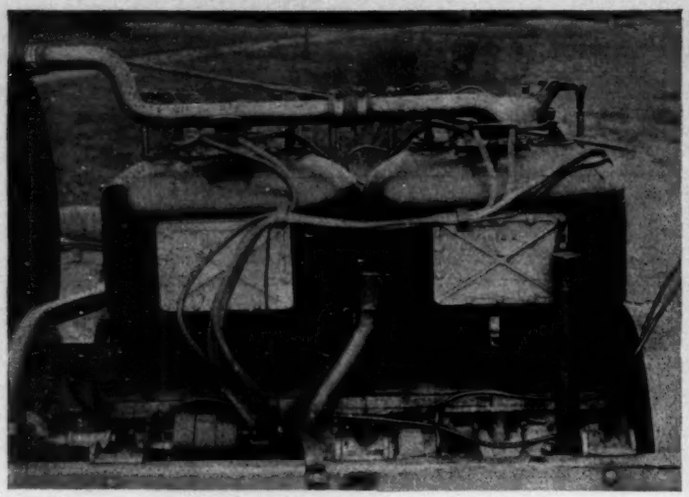
A. Clement, who has each year been a close contestant, brought with him this year a racer fashioned much along the lines of that used last season and particularly along the lines of that with which he ran second in the grand prix. His car is one with separately cast cylinders with 6.28-inch bore and stroke and carrying very large water jacket spaces. The valves are opposite, calling for a couple of camshafts worked from enclosed, forward half-time gears, with the shafts enclosed in semi-cylindrical expansions of the top of the crankcase. It is the only one of the five finishing machines to have a high tension, or jump spark ignition, a magneto supplying the current and calls for attention by its 50-inch tread, 6½ inches less than that of the American contestants. The admission pipes on the right are very large and the carbureter is carried low beneath the motor bed. It has a separate float chamber, central vertical spraying chamber and additional air valve. The tops of the cylinder heads are large aluminum water plates, perceptibly arched and connected direct to the radiator return pipe. A separate cup oiler gives lubricant to the pumpshaft, and an equally short magnetoshaft, but this is all. A broad flat belt drives the four-blade fan. The radiator is a honeycomb style.

ITALIAN AND AMERICAN CARS CONTESTING FOR THE 1906 VANDERBILT CUP

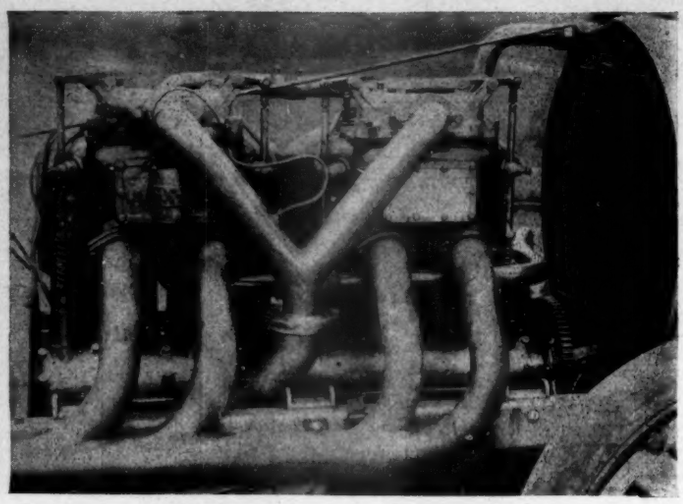
Speeds	Capacities Gallons Water	Gas	Oil	Wheel Base	Tread	Tires	Removable Rims	Bearings Wheels	Carbureter	Cooling	Radiator	Valves	Brakes	Frame
3	8½	55	1½	112	56½	32x4 34x5 Diamond	On rear wheels	Ball	Automatic dash pot regulation	Integral jackets	Thomas Fedders	Mechanical inlet over exhaust	Expanding in hub drums. One on countershaft	Hammered steel
4	8	30	3	112.6	55.1	870x90 935x135 Michelin	Yes	Ball	. ...	Centrifugal pump	Honeycomb	.....	Band on transmission and rear hubs	Pressed steel
4	15	47	6	115	50.5	870x90 920x120 Continental	Yes	Ball	Special Mercedes	Centrifugal pump	Honeycomb	Intakes in head exhausts beneath	Band on countershaft and rear hubs	Pressed steel
4	9	30	3	110	55	870x90 880x120 Michelin	Yes	Ball	Float feed	Pump gear driven	Honeycomb	.....	Expanding rear wheels. Band on differential and driving shaft	Pressed steel
2	None	30	2	94	56	34x3½ 34x4 Diamond	None	Hess-Bright Ball	Schebler	Forced draft to air jackets	Blower fan	Mechanical opposite sides	Internal and external hub brakes	Pressed steel
4	.....	33	2	.....	.....	870x90 935x135 Michelin	Yes	Ball	.....	Pump gear driven No fan	Tubular	Intakes in head exhausts beneath	Foot brake on cardan shaft and hand brake expanding in drums	Pressed steel
4	15	47	6	115	55.1	870x 0 9.0x120 Continental	Yes	Ball	Special Mercedes	Centrifugal pump	Honeycomb	Intakes in head exhausts beneath	Band on countershaft and rear hubs	Pressed steel
4	9	30	3	110	55	870x90 880x120 Michelin	Yes	Ball	Float feed	Pump gear driven	Honeycomb	.....	Expanding on rear wheels. Band on differential and driving shaft	Pressed steel
3	9	40	8	106	56	34x3½ 34x4½ Diamond	None	Hess-Bright Ball	Float feed compensating	Copper jackets	Cellular	Mechanical inlet in head exhaust at side	Running brake on countershaft. Emergency on rear wheels	Pressed steel
3	8	30	3	96	53	810x90 8 0x120 Michelin	Yes	Ball	Float feed	Pump No fan	Gilled tube	Intake over exhaust	Internal expansion on rear wheels. Hinged band on transmission shaft.	Pressed steel
3	6½	30	4	110	51	870x90 880x120 Michelin	Yes	Ball	Special Itala	Centrifugal pump	Honeycomb	Intake over Exhaust	Internal expansion on rear wheels. Band on transmission shaft	Pressed steel
3	4	30	3	102	56	32x4 32x4 Diamond	None	Timken Roller	Schebler	Integral jackets	Cellular	Mechanical opposite sides	Expanding and band, both in rear hub drums	Pressed steel
4	18	40	4	114	50	870x90 895x135 Michelin	Yes	Ball	.....	Centrifugal pump	Honeycomb	Mechanical opposite sides	Countershaft and rear hub bands	Pressed steel
4	9	30	3	110	55	870x90 8 0x120 Michelin	Yes	Ball	Float feed	Pump gear driven	Honeycomb	.....	Expanding on rear wheels. Band on differential and driving shaft	Pressed steel
3	12	15	3	102	56	28x3½ 28x3½ Diamond	Yes Special	Ball	Special Christie	Copper jackets	Cellular	Automatic inlet	Drum brakes on rear wheels	Pressed steel
4	12	50	3½	110	51 2	870x90 880x1 0 Michelin	Yes	Ball	.....	Centrifugal pump	Tubular	Mechanical opposite sides	Transmission and rear hub bands	Pressed steel
3	6½	30	4	110	51	870x90 880x120 Michelin	Yes	Ball	Special Itala	Centrifugal pump	Honeycomb	Intake over exhaust	Internal expansion on rear wheels. Band on transmission shaft	Pressed steel

Motor and gearset are carried on a narrow subframe, each side piece of it being bent outward where it passes the flywheel. Unlike most French racers, it is shaft-driven, uses a multiple disk clutch, has ball-bearings throughout except in the motor, boasts of a 114-inch wheelbase, weighed in at 2,191 pounds and uses internal brakes on the back hubs, as well as one hand brake on the cardan shaft. It has a double torsion rod, one like a V with the apex secured to a frame crosspiece near the gearset and the ends of the arms stretched onto the top and the other to the bottom of the differential housing and slightly to the right of the cardan shaft. Jenatzy, the picturesque figure of motor car racing, had in his big Mercedes a car that led Lancia for over half the race with exactly a minute start on him and one which exemplified well the build of the famous Mercedes factory, even if this pioneer concern has recently abandoned the racing field. That Mercedes cars set many fashions in car build is evident from a cursory examination of the cup racers. First of all could not be mistaken that redoubtable honeycomb radiator, then the make-and-break ignition, long wheelbase, side chain drive and multiple spraying nozzle carbureter, the latter a feature that enabled Jenatzy to get the quickest start of the contestants. With one side of the bonnet lifted the motor, stolid in the extreme, stands a symbol of power and regularity. Seen from the right the two pairs of cylinder castings are partly obscured by the big two-nozzle carbureter looking like a good sized tin can hung horizontally with a little cup-like float chamber at the forward end. The throttle is a sliding drum which as it brings into use the extra nozzle uncovers also additional air openings. The igniter mechanisms are on this side, carried well up on the corners of the cylinders—there are no valve ports, as the intakes are in the cylinder heads with actuation through rocker arms. On the left side is the gear-driven magneto, the short exhaust valve lift rods with big part conical valve springs and near the magneto is the pump. The spiral spring clutch and selective gearset are there as are band brakes on the jackshaft and internal brakes in the rear wheel drums. These latter brakes are very broad. The brake drum carries on its outer surface the sprocket and within offers a smooth surface beneath and on either side of the chain sprocket, making the braking strain in line with the chain stress. Every nut on the car is cotter pinned, a projection on the rear spring hangers for the front springs prevents the shackle reversing.

In capitulating car students should cling to such facts that of the five winners, four used make-and-break ignition and that with jump spark took its current from a magneto. Ball-bearings carry all of the road wheels; one uses a cone clutch—the winner—two have disk clutches and two spiral spring types; three have chain drive and two shaft; the wheelbases in order of finish are 96, 110, 110, 114 and 115 inches, surely a progression inversely proportional to the speed made; the treads are, respectively, 53, 55, 51.2, 50 and 50.5 inches; and all use detachable rims, shock absorbers, semi-elliptic springs and large-sized tires.



LEFT SIDE OF THE HOTCHKISS MOTOR



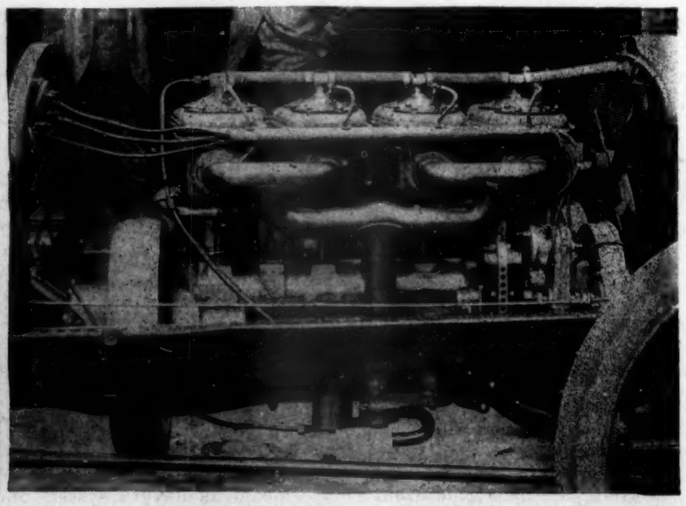
RIGHT SIDE OF THE HOTCHKISS

Of those foreign machines not completing the ten laps, none created more surprise among the critics than Heath's Panhard with its pressed steel frame. The Panhard machines have always used armored wood frames until the present. This car like the one driven other years uses shaft drive. The Itala cars possess a unique valve action in which one rocker arm opens the intake and exhaust valve of a cylinder, one camshaft sufficing for both sets of valves. These cars carry particularly nice shock absorbers in the form of band brakes. The axle housing carries a broad brake wheel rigid with it. Surrounding the brake wheel is a clamping band with horizontal arm that connects through a vertical arm with the car frame. A thumb nut affords any tension of the clamping band. The Hotchkiss, ball-bearing through as heretofore, has cylinders in pairs with intake valves in the top and exhausts in the bottom of ports on the right side, the former opened by rocker arms. A fan is not used. Half-time cars are not enclosed, the clutch is of the cone type, drive is by shaft, wheels are reinforced by big hub plates of large diameter, crosspieces of the frame are perforated and ignition is high-tension with a magneto as the current producer.

Further comments, on the motors, the clutches, the gearsets, the brakes, the oiling, the cooling, the carburation and the other systems of the foreign road locomotives are useless. With one and all the story is simply good material. Not good but best material, and careful workmanship. Added to these is the driver and tire story. The list of breaks during the run tells a double truth—good workmanship and good material. The Hotchkiss broke a crankshaft. This was the one big break among the foreign machines, although one Fiat had a disabled steering gear after it had brushed the leg of a boy and then took the ditch. All told two mishaps is a brief tale for eighteen racing monsters. Three years ago 80 per cent of the contestants in a big event were down and out before the winner had crossed the tape on the final lap. Not so now. The motor car is built to stand and built to go.

Speculation has it that next year will see racing machines of lighter build. For 2 years light-weight Darracq cars with short wheelbases have been winners. Why build a 130-horsepower car when a 100-horsepower machine will beat it out? Beat it on the straight aways, beat it on the grades and beat it on the turns. Short wheelbases are essential in a course fretted with eleven turns to the lap or 110 for the race. Two seconds saved in making each turn means 220 seconds saved in the ten laps, enough to have won the race to Lancia. The long-wheelbases are excellent on the straight stretches, but long stretches are needed. The light car can pick up as fast on the stretch as can the heavy car, perhaps a little faster, and it is certain it is as obedient to the brakes when approaching a turn. Smaller motors won out this year—Renault in the grand prix, the smallest in the contest, and Darracq in the present race, the smallest motor of the five finishing cars. Detachable rims are the best solution of the tire problem. They are reliable and speedy. They handed victory to the Renault in the grand prix race and each of the five finishers in the Vanderbilt used them. The present race showed the supremacy of the magneto. Every car carried one. If magnetos are good on racing machines, they are good on touring cars and doubtless 1907 will see a goodly number of them in use on American machines. Altogether there are lessons on every hand to be learned from these racing cars. The maker that seeks them will court success. It is up to the makers.

WATERJACKET SCHEME ON THE BAYARD



INTAKE SIDE OF THE BAYARD MOTOR

GIVES UP OLD COURSE—NEW SCHEME PLANNED

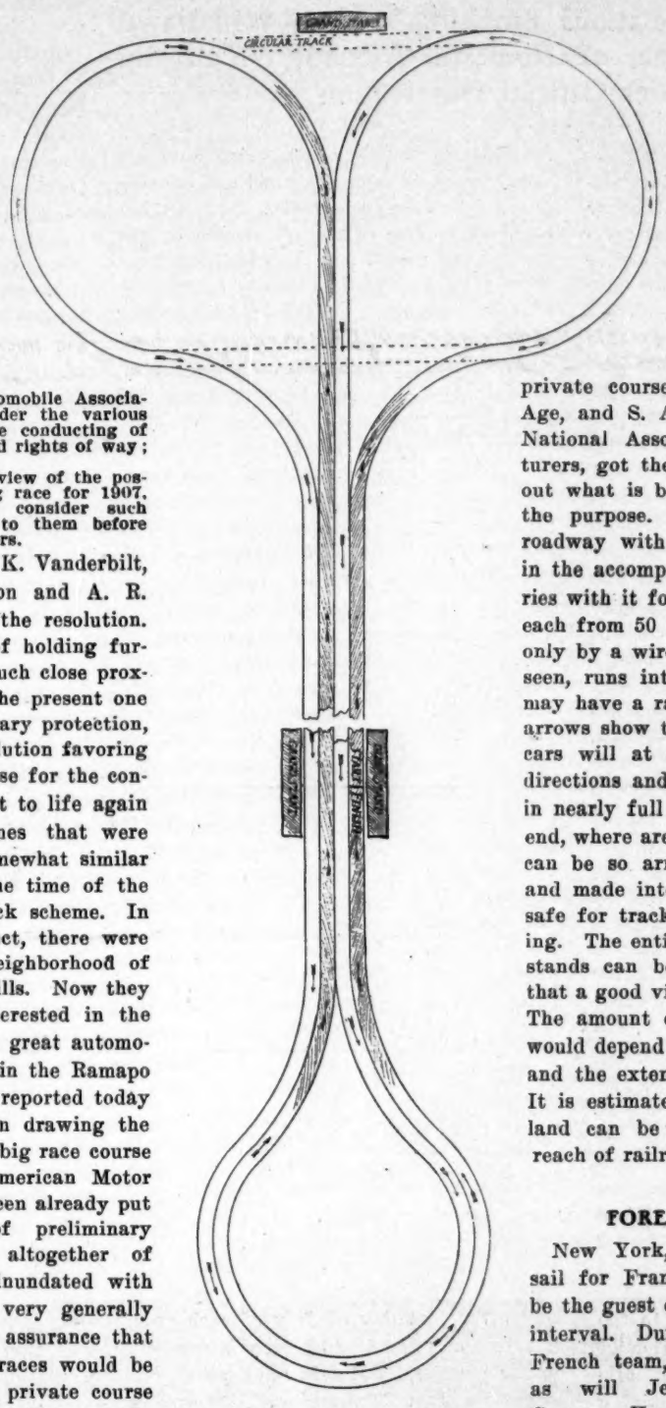
NEW YORK, Oct. 9—At the meeting of the directors of the American Automobile Association, held yesterday, the Nassau county circuit was practicall abandoned as a course for future eliminating trials and Vanderbilt cup races by the adoption of the following resolution:

Whereas, The board of directors of the American Automobile Association has by resolution expressed itself in favor of automobile races on private rights of way, it is hereby.

Resolved, That a committee of three members of the American Automobile Association be apopinted to carefully consider the various propositions having as an object the conducting of automobile races on especially reserved rights of way; and be it further

Resolved, That this committee, in view of the possibility of conducting the elim.nating race for 1907, be instructed to at once carefully consider such propositions as may be submitted to them before referring to the full board of directors.

President Farson appointed W. K. Vanderbilt, Jr., Jefferson De Mont Thompson and A. R. Pardington the committee under the resolution. The acknowledged impossibility of holding further races over an open road in such close proximity to a population center as the present one without government or state military protection, added to the adoption of the resolution favoring the construction of a private course for the conduct of such contests, has brought to life again all the various speedway schemes that were coeval with the passage of a somewhat similar resolution by the A. A. A. at the time of the springing of the Pennington track scheme. In addition to the Pennington project, there were schemes for speedways in the neighborhood of Lakewood and in the Berkshire hills. Now they say that E. H. Harriman is interested in the promotion of a project to build a great automobile course of 25 or 30 miles up in the Ramapo hills, near Tuxedo. It is further reported today that a lawyer is now engaged in drawing the papers for the incorporation of a big race course concern to be known as the American Motor Association and that $1,500 has been already put up to cover the expenses of preliminary surveys. There is likelihood altogether of the A. A. A. committee being inundated with suggestions and projects. It is very generally believed, however, that with the assurance that the eliminating and Vanderbilt races would be run over them the erection of a private course would be practical from a financial standpoint. The gate receipts would seem likely to pay not only the interest on the bonds but a dividend on the stock. It is by no means certain, however, that a course either remote enough from a population center to be safe cannot be secured or that the government or some state cannot be prevailed upon to furnish military protection, even if the passage of a special law be necessary.



NEW YORK, Oct. 9—Since the American Automobile Association has practically decided to give up racing on the public highways, mainly because of the distressing accidents that occurred in the Vanderbilt cup race and because it seems almost impossible to police a road race course without the aid of the federal authorities, enthusiastic automobilists have been figuring upon some feasible scheme for a private course. N. H. Van Sicklen, of Motor Age, and S. A. Miles, general manager of the National Association of Automobile Manufacturers, got their heads together today and laid out what is believed to be what is desired for the purpose. The plan includes a four-track roadway with curves of large radii, as shown in the accompanying drawing. The scheme carries with it four stretches of any desired length, each from 50 to 60 feet in width and separated only by a wire fence. Each straight, as will be seen, runs into a large and easy curve, which may have a radius of from ⅛ to ¼ mile. The arrows show the direction of travel, so that the cars will at all times be passing in opposite directions and for the greater part of the time in nearly full view of the grand stand. At the end, where are located the two circles, the course can be so arranged that it can be fenced off and made into a huge oval track, suitable and safe for track racing, record-breaking and testing. The entire scheme is so laid out that grand stands can be erected in convenient places so that a good view can be had of the whole course. The amount of ground that would be required would depend upon the exact design of the track and the extent of the straights and the curves. It is estimated that sufficiently large tracts of land can be secured in the east within easy reach of railroads to accommodate the people.

ITALIANS VISIT CHICAGO

New York, Oct. 10—Special telegram—Lancia, Nazzaro and Cagno, of the Italian Vanderbilt cup race team, left this afternoon on the Lake Shore 18-hour train for Chicago. They will reach the Windy City in the morning and will be the guests of the Motor Age staff, which has promised to give the three great drivers a ride around the Chicago boulevard system and a glance at other interesting things in Chicago.

FOREIGNERS RETURN HOME

New York, Oct. 9—Louis Wagner will not sail for France for at least a week and will be the guest of honor at several banquets in the interval. Duray and Albert Clement, of the French team, will sail for home on Thursday, as will Jenatzy, of the German team. George Heath's mechanic will also sail on Thursday, but Mr. Heath has not settled upon his sailing date. Dr. Weillschott, of the Italian team, will be another who will sail on Thursday, but Lancia and Nazzaro, the other Fiat drivers, will make a short tour of the country before leaving for home. Elliott F. Shepard, of the French team, will probably remain in this country for a few weeks. Cagno and Fabry, the Itala drivers of the Italian team, have not decided how soon they will sail for Europe. Caillois and Le Blon, the Frenchmen who drove Thomas racers in the American trial, will probably remain here for at least a few weeks. The foreign drivers have been greatly impressed with America from a general point of view as well as from the standpoint of automobiling, wishing they had time to see more of the country. There is every prospect that, should another big race be held here, the majority of them will return as competitors.

UNCLE SAM TELLS HOW TO DO IT

Government Issues Regulations Providing for the Withdrawal from Bond, Tax Free, of Domestic Alcohol Which Has Been Denatured Under Official Observation

Washington, D. C., Oct. 6—Pursuant to the act of congress passed at the last session and which will take effect on January 1 next, the commissioner of internal revenue, with the approval of the secretary of the treasury, has issued regulations providing for the withdrawal from bond, tax free, of domestic alcohol to be rendered unfit for beverage or liquid medicinal uses by the admixture of denaturing materials.

As reported in Motor Age, Commissioner Yerkes and the chief chemist of the internal revenue bureau, spent the entire summer in Europe studying the conditions prevailing in Germany, France, Belgium and other countries relative to the administration of the tax-free alcohol laws, and the regulations now made in conformity with the act of congress are based on the and the entire subject is gone into with the greatest detail with a view to prevent- results of such study. The regulations are very extensive, comprising 152 sections, and the entire subject is gone into with the greatest detail with a view to preventing fraud to the revenue in the use of denatured alcohol. The regulations provide in part that the proprietor of any registered distillery may withdraw from his distillery warehouse, free of tax, alcohol of not less than 180 degrees proof or strength, to be denatured in the manner hereinafter prescribed. A distiller desiring to withdraw alcohol from bond for denaturing purposes under the provisions of the act shall, at his own expense, provide a denaturing bonded warehouse, to be situated on and constituting a part of the distillery premises. The denaturing bonded warehouse shall be used for denaturing alcohol and for no other purpose. There shall be provided within the denaturing bonded warehouse a room to be designated as the denaturing material room. The regulations go into great detail as to the course to be followed in the operation of the denaturing bonded warehouse, prescribing the capacity of the closed mixing tanks, and the construction of the bonded denaturing warehouse. The denaturing bonded warehouse shall be under the control of the collector of internal revenue of the district in which located, and shall be in the joint custody of a storekeeper, storekeeper gauger or other designated official and the distiller. Certain bonds must be given by the distiller regulated by the estimated quantity of alcohol the distiller will denature during a period of 30 days. Not less than 300 gallons of alcohol can be withdrawn at one time for denaturing purposes.

Unless otherwise specially provided, the agents used for denaturing alcohol withdrawn from bond for denaturing purposes shall consist of methyl alcohol and benzine in the following proportions: To every 100 parts by volume of methyl alcohol of the desired proof—not less than 180 degrees—there shall be added ten parts by volume of approved methyl alcohol and one-half of one part by volume of approved benzine; for example, to every 100 gallons of methyl alcohol, of not lesss than 180 degrees proof, there shall be added 10 gallons of approved methyl alcohol and ½ gallon of approved benzine. Alcohol thus denatured shall be classed as completely denatured alcohol. Methyl alcohol and benzine intended for use as denaturants must be submitted for chemical test and must conform to the specifications prescribed by the regulations. Alcohol denatured by use of methyl alcohol and benzine as outlined above is to be classed as completely denatured alcohol, while alcohol denatured in any other manner will be classed as specially denatured alcohol. Persons who desire to deal in completely denatured alcohol must secure permits from the collector of the district in which the business is to be carried on. Every person who sells or offers for sale denatured alcohol in the original package shall be classed as a wholesale dealer in denatured alcohol, and denatured alcohol shall not be sold in quantities of 5 gallons or more except in the original stamped packages. Every person who sells denatured alcohol in quantities of less than 5 gallons will be classed a retail dealer in denatured alcohol. The same person may be both a wholesaler or a retailer, but the retail and wholesale business will be considered separate, and permits must be secured for each. Applications to deal in denatured alcohol must be made to the collector of the district in which it is proposed to do business on or before the first day of July of each year, or before any denatured alcohol is received on the premises, and said application will expire on June 30 ensuing. In case a dealer in denatured alcohol moves his place of business before the expiration of the fiscal year for which the permit was issued he must make application for the transfer of his permit to the place to which he moves.

If it should appear on proper showing made at any time that the party to whom a permit to deal in denatured alcohol has been issued has wilfully violated any of the provisions of the law or regulations relating to the using or handling of denatured alcohol, the collector is authorized to cancel the permit. Wholesalers shall keep a record, in which they shall enter all the denatured alcohol received and disposed of by them. All denaturers of alcohol, and wholesale dealers in that commodity must preserve for 2 years all bills of lading, express receipts, dray tickets and other similar papers showing shipment of denatured alcohol, and such papers must be submitted to any revenue officer who makes request for same for inspection. Dealers in denatured alcohol shall keep the permits issued to them posted in a conspicuous place. Retailers shall keep a record, in which they must enter the date upon which they receive any package or packages of denatured alcohol, the person from whom received, the serial numbers of the packages, the serial numbers of the denatured alcohol stamps, the wine and proof gallons, and the date upon which packages are opened for retail. Retailers must provide themselves with labels upon which the words "Denatured Alcohol" have been printed in plain letters. The printing shall be red on white. A label of this character must be affixed by the dealer to the container, whatever it may be, in the case of each sale of denatured alcohol made by him.

As the agents adapted to and adopted for use in complete denaturation render the alcohol denatured unfit for use in many industries in which ethyl alcohol, withdrawn free of tax, can be profitably employed, therefore, in order to give full scope to the operation of the law, special denaturants will be authorized when absolutely necessary. Yet the strictest surveillance must be exercised in the handling of alcohol incompletely or specially denatured by the process.

The commissioner of internal revenue will consider any formula for special denaturation that may be submitted by any manufacturer in any industry and will determine whether or not the manufacture in which it is proposed to use the alcohol belongs to a class in which tax-free alcohol withdrawn under the provisions of the law can be used, whether or not it is practicable to permit the use of the proposed denaturant and at the same time properly safeguard the revenue. But one special denaturant will be authorized for the same class of industries, unless it shall be shown that there is good reason for additional special denaturants.

The above is but a bare outline of the regulations to be observed in order to take advantage of the tax-free alcohol law, and there is no question but that the onerous requirements will defeat in a measure the object of the congressional act. It is presumed the automobile industry will investigate very thoroughly the use of alcohol as a fuel in internal-combustion engines, and as the requirements of the law become more familiar to the trade, it is not too much to expect the government will meet the automobile industry half way and give it every encouragement in the use of denatured alcohol. That the automobile industry is prepared to delve deeply into the possibilities of this kind of fuel

is evident from the reports coming in from different parts of the country. This is particularly noticeable in the western section, where many a little fellow is experimenting with alcohol motors. The large makers, too, are not overlooking any bets in this direction and it is more than probable that another season will see several models of cars put out in which the feature will be a motor using alcohol for fuel. Of course none of these will be sprung until after the first of the year, when the government measure legalizing denatured alcohol, tax-free, becomes a law.

FRAME GOOD ROADS BILLS

Seattle, Wash., Oct. 6—The King County Good Roads Association has endorsed C. V. Beardslee for county commissioner, as against Al Rutherford, the republican nominee. Mr. Beardslee is a democrat. The two have been closely questioned, and the members of the association are satisfied that the democrat is right on the good roads proposition. The association, which is composed largely of automobilists, met in the commercial club rooms. At the same meeting Judge Alfred Battle reported on three bills that will be presented at the coming session of the legislature. One of the bills is described as "an act to provide for the improvement of the public highways, providing for the payment of the cost thereof in part out of the state highway fund and in part out of the general road and bridge fund and property benefited and declaring an emergency." The bill provides that after following the general preliminary procedure one-half the cost shall be borne by the state fund. Of the balance 35 per cent shall be borne by the general fund. If the road is built in response to petition the remaining 15 per cent shall be paid by property benefited; if by resolution by the commission without petition the 15 per cent is chargeable to the district road fund. Another bill gives authority to the county commission to appropriate from the general fund an amount not to exceed one-third of the cost for the opening or paving any street in town or city, when it is considered essential to connect with a highway. The third bill permits the commission to acquire quarries or deposits of suitable material for road building material.

WORK FOR CONVICTS

Lansing, Mich., Oct. 7—In accordance with instructions from the 1906 legislature State Highway Commissioner Horatio S. Earle has compiled statistics looking toward the employment of convict labor in improving the highways of the state. After careful research Commissioner Earle has come to the conclusion that it would be most profitable. He was instructed to determine a location for a branch prison where the crushing of stone for the roads might be done and also to determine the costs of transporting stone to such a place.

LAND THE REO PEOPLE

"Independents" Add R. E. Olds' Plant to Membership List—Show Spaces Allotted

New York, Oct. 6—At the meeting of the American Motor Car Manufacturers' Association at the New York headquarters last Friday, it was announced that the Reo Motor Car Co., of Lansing, Mich., had applied for membership in the association and would exhibit in the association's space at the club show to be held in Grand Central Palace December 1 to 8. In addition to the Reo thirteen concerns have applied during the past 6 weeks. With the election of these fourteen concerns there are now thirty-seven American manufacturers combined in the association. The rooms of the American association in the Spalding building were crowded on Friday with representatives drawing for space in the preferred position which the association has secured for its members in the club show. The DeLuxe Automobile Co. was fortunate in drawing first choice, but fortunately all the members of the association were able to secure space on the main floor with the exception, of course, of those exhibiting commercial vehicles, that, according to the rules of the club, were placed on the floor above. Following is a list of the new applications for membership in the American Motor Car Manufacturers' Association during the past 6 weeks, with a number of others under consideration and awaiting the vote: Reo Motor Car Co., American Machine Mfg. Co., American Motor Car Co., B. L. M. Motor Car & Equipment Co., Dragon Automobile Co., Evansville Automobile Co., Mora Motor Car Co., Pierce Engine Co., Rapid Motor Vehicle Co., St. Louis Car Co., Motorcar Co., Watson Machine Co., Dolson Automooile Co., DeLuxe Automobile Co.

Applications for space at the Chicago show, which is to be held at the Coliseum and First regiment armory, February 2-9, closed for the first allotment on Monday with a total of ninety-seven applicants for automobile space, the largest number ever known in this country. The applicants asked for about 80,000 square feet of space. Only about 55,000 are available, the galleries of both buildings and a part of the second floor of the Coliseum annex being given up to the parts and accessories, as heretofore. Ten applications have been rejected, the applicants having taken part in an unsanctioned show, contrary to the rules of the National Association of Automobile Manufacturers, and the Motor & Accessory Manufacturers. The drawing for space among the automobile manufacturers took place on Wednesday and Thursday of this week, but the result will not be announced until October 15, on which date acceptances are due. Members of the Motor & Accessory Manufacturers applied for about 12,000 square feet of space, and there are sixty applicants outside the membership of that association, so that every foot of space, in both departments, will be taken at the first allotment. Manager Miles is now working on the plans for the Chicago affair and predicts that next February will see the finest show he has ever promoted. L. L. Fest is looking after Mr. Miles' interests in Chicago.

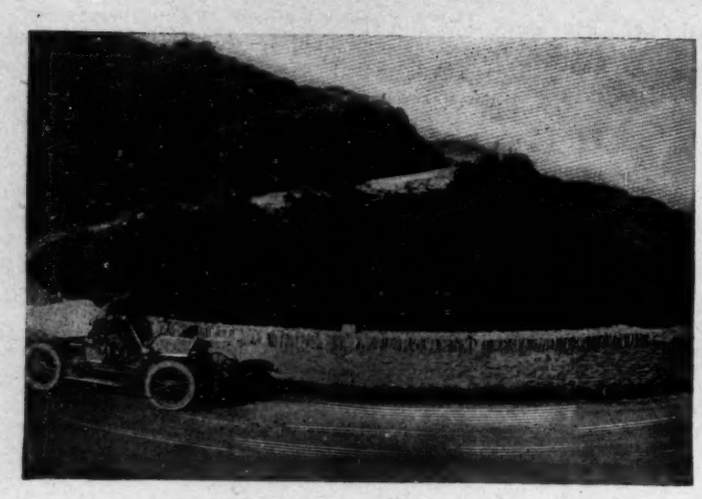
POPE STRIKERS ENJOINED

Toledo, O., Oct. 9—United States Judge R. W. Taylor has made a most sweeping injunction order that practically ends all disturbances about the Pope-Toledo automobile plant. By Judge Taylor's decision, 276 defendants in the suit have been served with papers by United States Marshal Wagner and corps of deputies, the striking machinists thus being forbidden from interfering in any way with the company or its employes. The order further prohibits the strikers from posting pickets around the plant, entering the grounds or congregating nearby, attempting to compel or induce any workmen to quit by use of threats, coercion or intimidation, further restraining them from intimidating any prospective employes and molesting anyone or anything connected with the company or its business, furthermore from interfering with the employes on their way to and from work or visiting them at their homes, or intimidating their wives or families in any manner. James J. Keegan, fifth vice-president of the International Association of Machinists, has been in the city and has had personal supervision of the strike, and he, with 275 members of Local Union, No. 105, has been made defendant in the suit. In the bill of complaint, General Manager Schaaf alleges that on August 30 the defendant strikers entered into an unlawful conspiracy against the Pope people in threatening to quit work unless two men, who had been discharged for just reasons, should be taken back within 20 minutes. The hearing of the injunction suit will be held in the government building in this city next Saturday at 10 a. m.

WANT TAG RELIEF

Philadelphia, Oct. 6—October 15 having been announced by Philadelphia's new director of public safety, McKenty, as the date on which the municipal license and tag ordinance will begin to be rigidly enforced, the local automobile clubs and trade organizations are endeavoring to have the city councils repeal the city law. They argue that as all Philadelphia automobilists are obliged to take out state licenses, it is unjust that they should be compelled to pay a similar fee to the city; besides, the multiplicity of tags leads to confusion, and the state law plainly prohibits the carrying of any but the state tag on the Pennsylvania cars.

TOURIST TROPHY GOES TO ROLLS-ROYCE



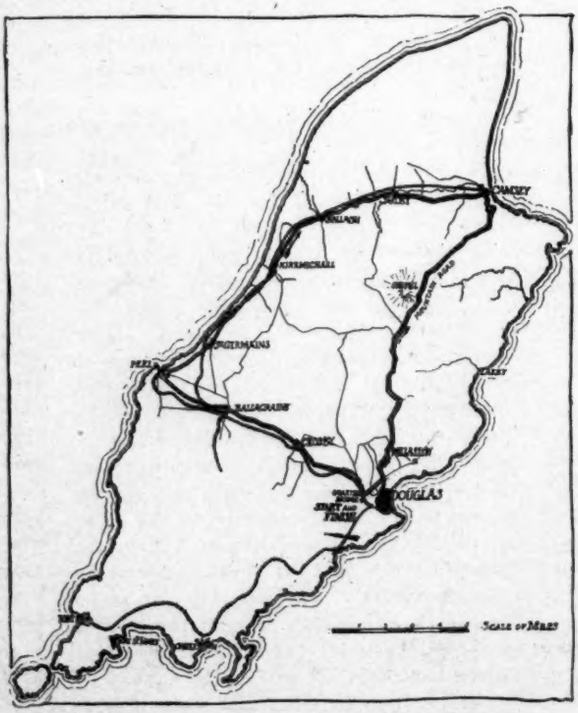
BABLOT IN BERLIET, SECOND, ON STEEP DESCENT

ROLLS ON LAST CIRCUIT, TAKING RIGHT-ANGLE TURN

London, Sept. 29.—C. S. Rolls, driving a 20-horsepower Rolls-Royce, won the second annual contest for the Tourist trophy Thursday on the Isle of Man. The race was run over a distance of 161½ miles, the fuel being limited to 1 gallon of gasoline for every 25 miles, or 6½ gallons, the chassis of each car carrying a load of 1,175 pounds, made up of the body, driver, passenger and ballast. Rolls did the distance in 4 hours 6 minutes ⅗ second, an average of 39.4 miles an hour and a gasoline consumption of 24.05 miles to the gallon. Second place went to a 22-horsepower Berliet driven by Bablot, which made the course in 4 hours 32 minutes 58⅕ seconds, an average speed of 35.3 miles an hour. A. Lee Guiness, in a 15-horsepower Darracq, was third in 4 hours 42 minutes 48⅕ seconds; G. Brand, in a 20-horsepower Clement, fourth in 4 hours 47 minutes 20 seconds, an average of 34 miles an hour; T. C. Pullinger, 16-horsepower Beeston Humber, in 4 hours 56 minutes 1⅕ seconds; L. Coatalan, 20-horsepower Coventry Humber, in 5 hours 52⅘ seconds; John S. Napier, winner last year, in an 18-horsepower Arrol-Johnston, in 5 hours 22 minutes 1 second, an average of 30.1 miles per hour; A. E. Crowdy, 18-horsepower Siddeley, eighth in 5 hours 47 minutes 19 seconds, an average of 27.9 miles per hour. Rolls' car is all-British built with the exception of the magneto. With the exception of the Berliet, the first seven cars were all shod with Dunlops.

While not a part of test there was an unofficial hill-climb in connection with the contest, the cars being timed up a mile stretch on the mountain road from Ramsey to the Bungalow, immediately above the hairpin turn. The average gradient in this mile was 1 in 10.8, the Rolls-Royce again distinguishing itself by making the fastest time, going up at a 26-mile-an-hour pace. The Arrol-Johnston did 25.1, while the Argyll showed 24.7 miles up the hill.

The principal features of the race were in the splendid driving record of Rolls and his Rolls-Royce car and the brilliant weather which gave the competitors every opportunity to make the most of the somewhat drastic conditions imposed. To take an automobile weighing with load 25 hundredweight over a hilly country at 40 miles an hour on a gasoline consumption of 24.05 miles to the gallon will appeal strongly to motorists of real experience. It was made easy for Rolls chiefly owing to the disqualification of his three most dangerous competitors for being a few minutes late at the gate and to the misfortune which afflicted the Arrol-Johnston, last year's winner, which practically put it out in the second round. But there was no possible manner of doubt regarding the character of the win. Rolls' were the fastest laps on three out of four and he would have won in any case. Last year the average pace of the winner was under 34 miles to the hour; Rolls' pace was 39½ to the hour, and he finished with about a pint of fuel on hand. The story of the contest is easily and quickly told. There were twenty-eight starters and nine finishers. One car broke a crankshaft, another burned out a leather clutch, another burst its clutch, another had its gear jammed, another broke a suspension spring and the remainder ran out of gasoline before the finish. The artificiality of the contest was shown by the fact that in every team but the Humber one car was knocked out on consumption while the other finished with plenty of fuel on hand. The course was over a lap of 40 miles 240 yards on the Isle of Man, rising at one point to an altitude of 1,400 feet and falling to almost sea level. This was covered four times by the successful cars.



ROUTE OF THE TOURIST TROPHY RACE

The holder, the Arrol-Johnston, was practically put out of winning by tire trouble in the second round. Girling in a Darracq ran out of gasoline 8 miles from the finish, although working with a smaller jet on the carbureter than Lee Guiness, who ran third in a companion car. Northey broke a front spring on the first round. Both the Minerva cars were hopelessly disordered in the first round by clutch troubles and very quickly the contest resolved itself into a race between Rolls and the Argyll driver, Thomas. The latter, however, was discovered to have shed his floor boards and ballast and so his times were not registered after the first round, although he was unofficially timed to finish second. Both Siddeleys burst their torque rods, the Thornycroft had gear trouble, as had the Deasy. The Climax fractured its crankshaft and the Vici its propellershaft.

Happily there were no personal accidents, but the whole affair was very tame and almost uneventful. When the gasoline of the cars to finish was measured it was found that the winning Rolls-Royce had 21 ounces left of its 6½ gallons, the Berliet had 15, the Darracq 10½, the Clement 55, the Beeston Humber 120, the Coventry Humber 12½, the Arrol-Johnston 19, the Siddeley about 8 pints and the Scout 22 ounces. Experts have been trying to account for these inconsistencies and fluctuations, but up to the moment of dispatch with but poor success. So much criticism has been aroused by the disqualifications that were unexpected and the expected disqualifications that did not take place that it is confidently asserted that if the event is again held its conditions will be radically altered.

HILL CLIMB IN ROCHESTER

Rochester, N. Y., Oct. 8—The second annual hill-climb of the Rochester Automobile Club, of this city, will be held next Saturday up West Dugway hill, in the town of Penfield. The distance to be climbed is 2,760 feet, the difference in elevation at the top and bottom being 136 feet. The classification is made by horsepower in five of the classes. In addition, there is a class for steamers, one for electrics and a free-for-all. In all but the free-for-all the driver must be the owner, a member of his family or his chauffeur, who must have been in his employ previous to October 1.

LONG DRIVE BY WOMAN

Denver, Colo., Oct. 6—Mrs. E. E. Teape and daughter, of Sand Point, Idaho, recently completed a trip from Chicago to Denver in an Orient buckboard in 15 days. Mrs. Teape drove and the two women made the few trifling repairs necessary. The trip was taken because of the condition of Mrs. Teape's health, her doctor having ordered her to get as much outdoor life as possible. One of the features of the ride was the friendliness of the farmers.

BLOMSTROM IN MERGER

Maker of the Queen Consolidates with the De Luxe Motor Co., Formerly of Toledo

Detroit, Mich., Oct. 8—As the result of a meeting held here a few days ago the C. H. Blomstrom Motor Co., of this city, the manufacturer of the Queen, has been merged with the De Luxe Motor Car Co., formerly of Toledo. Until further notice the firm will operate both the plants, but the main headquarters will be located in the Detroit factory on Clark avenue. The company will manufacture only high grade cars and expects to limit its 1907 output to 200 large touring cars and 300 of a smaller type. The De Luxe company has raised its capital stock from $750,000 to $1,000,000, $800,000 of which has been paid in. In the reorganization the officials of both companies are given places under the new firm. N. M. Kaufman, of the Blomstrom company, is president; George M. Verity, formerly head of the American Roller Mills, of Middletown, O., is vice-president and will move to Detroit and assume a prominent part in the management; F. M. Keeton, formerly general sales manager of the Pope-Toledo, is secretary; D. W. Kaufman, formerly with the Blomstrom company, is treasurer. Other directors are W. H. Morgan, of the Morgan Engineering Works, Alliance, O.; Henry E. King, of Toledo, and Frederick W. Whiting, of Detroit, the last named being also counsel for the company. Secretary Keeting announces that 30 per cent of the firm's output has already been contracted for. When he comes from Toledo he will bring with him 200 skilled automobile workmen, the remainder of the force of approximately 800 men to be drawn from the many experts already in Detroit, the result of the many factories which have prospered here since the early days of the industry. An immense new factory is now being planned. The De Luxe Company will have models ready for the New York show and has made application for a membership in the American Motor Car Manufacturers' Association. Frank S. Davis, John A. Herzog and Fred A. Meeks are the mechanical engineers in charge, while John E. Docher is superintendent at the works. C. H. Blomstrom, the mechanical expert of the Queen, retains his stock in the Detroit concern, but is not otherwise identified with the allied enterprise.

AUGUST FIGURES

Washington, D. C., Oct. 6—During August eighty-three automobiles, valued at $299,979, were imported into the United States, as against ninety-two cars, valued at $331,782, imported during the corresponding month of last year. During these periods the imports of automobile parts were valued at $23,400 and $30,400, respectively. The fact that 228 American-built automobiles, valued at $421,220, were exported from the United States during August, together with parts to the value of $45,911, shows that our export trade in this infant industry is assuming proportions that threaten to become gigantic before long. In August last year the total value of the cars and parts exported was $260,853. During the 8 months ending August last, the exports of cars and parts were valued at $3,336,420, as compared with $2,041,134 during the corresponding period of 1905, and $1,322,499 for the first 8 months of 1904. During August last the shipments of cars and parts were destined as follows: United Kingdom, $122,630; France, $15,250; Germany, $7,569; Italy, $1,125; other Europe, $7,280; British North America, $150,210; Mexico, $203,498; West Indies and Bermuda, $12,159; South America, $12,093; British East Indies, $2,228; British Australasia, $11,124; other Asia and Oceania, $20,099; all other countries, $1,866.

SCORE BY LAPS OF CONTESTING CARS IN THE TOURIST TROPHY RACE

No.	Entrant	Driver	Car	H. P.	Bore and Stroke	1st Lap 40 miles	2nd Lap 80 miles	3rd Lap 120 miles	4th Lap 160 miles
1	J. S. Napier	J. S. Napier	Arrol-Johnston	18	4⅜ x 6½	1:03:02⅘	3:20:21⅕	4:21:47	5:22:01
2	A. Rawlinson	A. L. Guinness	Darracq	15	3½ x 4⅝	1:28:18⅗	2:31:51⅕	3:37:09	4:42:48⅕
3	A. Rawlinson	Sidney Girling	Darracq	15	3½ x 4⅝	1:11:11⅘	3:22:00	3:36:20⅘	.....
4	C. S. Rolls	C. S. Rolls	Rolls-Royce	20	3⅛ x 5	1:00:13⅘	2:01:00⅗	3:02:25⅗	4:06:00⅗
5	C. S. Rolls	P. W. Northey	Rolls-Royce	20	3⅛ x 5	1:53:51	Retired	.....	.....
6	W. J. Wright	W. J. Wright	Minerva	22	4 x 4⅝	1:36:36⅗	Retired	.....	.....
7	D. Citroen	M. R. Browne	Minerva	22	4 x 4⅝	1:07:59⅗	2:16:45	.....	.....
8	T. H. Browne	C. L. Cattell	James & Browne	20	4 x 5	1:29:36⅗	2:59:52⅖	.....	.....
12	Alec Govan	R. P. Thomas	Argyll	16	3½ x 5½	1:01:17⅗	2:02:54⅕	.....	.....
15	A. Mosses	G. Braud	Bayard	20	3⅝ x 5½	1:12:47⅕	2:22:00⅕	3:24:21⅕	3:47:20
17	T. C. Pullinger	T. C. Pullinger	Beeston-Humber	16	4 x 4⅝	1:14:04⅕	2:27:32⅕	3:41:15	4:56:01⅕
18	E. Powell	L. Coatalen	Coventry-Humber	20	4 x 4	1:12:35	2:29:22	3:44:53	5:00:52⅗
23	J. E. Hutton	M. Bablot	Berliet	22	4 x 4⅛	1:09:14⅖	2:17:48⅗	3:25:31⅗	4:32:58⅕
24	J. D. Siddeley	M. G. White	Siddeley	18	4 x 4	1:16:29⅕	Retired	.....	.....
25	R. R. Brown	A. E. Crowdy	Siddeley	18	4 x 4	1:15:04⅕	3:20:32⅗	4:39:27⅗	5:47:19
26	J. E. Hutton	J. E. Hutton	Berliet	22	4 x 4⅛	1:14:44⅕	2:31:11	3:58:36⅗	.....
27	T. Thornycroft	T. Thornycroft	Thornycroft	14	4 x 4⅝	1:21:07⅗	2:42:04⅗	4:06:39⅕	.....
28	E. Lisle	G. F. Preune	Star	18	4 x 5	1:27:15	2:51:42	.....	.....
29	H. H. P. Deasy	R. A. Bell	Deasy	24	4⅛ x 5½	Retired	.....	.....	.....
31	G. Usmar	Gordon Usmar	Vinot	16	3⅝ x 5½	1:23:34⅘	2:44:29⅗	4:02:39⅕	.....
32	J. P. Dean	J. Percy Dean	Scout	17	3⅞ x 4⅝	1:11:10⅘	3:58:15⅗	5:21:25⅗	6:57:18⅕
33	J. Lisle	J. Lisle	Star	18	4 x 5	1:20:04⅕	2:41:02⅕	.....	.....
35	J. Mayfield	T. Watson	Climax	14	3½ x 3⅝	1:39:45⅕	Retired	.....	.....
36	R. Burns	R. Every	Swift	16	3⅝ x 5½	1:19:47⅕	Retired	.....	.....
37	W. L. Hardman	W. L. Hardman	Hardman	25	4⅜ x 5½	1:34:47⅕	2:58:45⅕	4:27:59⅕	.....
38	H. P. MacConnell	H. MacConnell	Bianchi	16	4⅛ x 5½	1:23:39⅗	2:28:37⅕	.....	.....
46	T. Smith	T. Smith	Academy	14	3½ x 3⅝	1: 9:40	2:59:13⅘	4:29:06⅗	.....
47	P. L. D. Perry	H. A. Bate	S. C. A. R.	18	3⅝ x 4	1:12:51⅗	2:23:17⅘	.....	.....
48	W. K. Perrens	R. Lascelles	Vici	12	5⅜ x 4	Retired	.....	.....	.....

MOTOR AGE

309 Michigan Avenue, Chicago
Published Every Thursday by the Trade Press Company
N. H. Van Sicklen, Manager — Chas. P. Root, Editor
Subscription Two Dollars a Year
Foreign Subscription Four Dollars
The Western News Company of Chicago & Its Branches Supply News dealers
New York Office, 29 West Forty-Second Street
Official Organ of the American Motor League
Entered at the Chicago Postoffice as Second-Class Matter.

AMERICA'S ROAD RACING POSITION

AMERICA must now admit it still has something to learn about making racing cars and about driving them. It has, nevertheless, made gigantic strides toward that stage of perfection that has been reached by European makers. This country is in that peculiar position that compels it to go on and not now abandon the attempt it has made to convince not only Europe but the world that it makes cars just as good as those manufactured abroad. It has taken a step from which it cannot gracefully recede; it must go on and fight it out to a finish, cost what it may. We have attempted to show the world how good is our product in the automobile manufacturing world; the result of the Vanderbilt cup race shows the world that we are either deficient in the matter of building or in the matter of driving, and whichever is considered the results are the same. It is now up to the American maker to go ahead and show what he can do and what he will do.

It is unfortunate that the American maker has been so rushed with work as to prevent him from giving the racing game the attention it deserves so long as the foreigner takes up this side of the business. It does not necessarily follow that racing cars and racing are necessary, but so long as Europe is in the game to demonstrate what it can do in the matter of speed and fine construction in high-powered cars, the American maker is forced into the game. We have been following the foreigners in road races for several years; we have at last made an effort to pass him. We cannot expect to succeed all at once; where we have been making racing cars for a couple of years the European maker has been turning them out for a decade or more. Is it any wonder the European knows better how to build and how to drive these road monsters? They are not practical machines, it is true, but their manufacture has been the means of determining constructional weaknesses that ordinarily would never be found in touring cars, so that road racing may be approved notwithstanding the presence of its faults and its dangers.

A few American makers have gone into the building of racing cars with such earnestness as to assure us that at no distant date we will be able to not only hold our own with our foreign friends, but will be able to beat them at their own game. We have built good cars this year; as a matter of fact, the American cars were the only ones as a team that went through the race from start to finish without developing weaknesses in construction. They were either not fast enough to defeat their foreign rivals or their drivers were short on experience. They had speed, as the records of the race show; they went the distance. Some of them lacked power and, consequently, speed, while others were not driven for all that was in them.

The foreign maker had the advantage over the Americans in that he had tried his machines out thoroughly—not in private test but in open competition. He had learned all the weaknesses in his car and had rectified all mistakes ere he attempted to pit his car against those made here; for be it known the foreigner is chary of the American and is not quite sure he will not run against a surprise at any moment. On the other hand, the American maker not only rushed his cup candidate out but put it into open competition before he knew positively what might be expected of it. As Motor Age has pointed out, the American maker was unprepared, whereas the foreigner was.

Talk of abandoning the Vanderbilt cup race or something that may take its place is nonsense—America must, now more than ever, hold some such affair. Its makers must go ahead building road racing cars until they have proved their ability to make cars as good, if not better, than those made abroad; she must, if necessary, educate road race drivers and pay them what they are worth; she must, if necessary, go abroad and compete in the big foreign events—but she must not now lay down and be the laughing stock of the world. She can and she will defeat the foreign cars and foreign drivers.

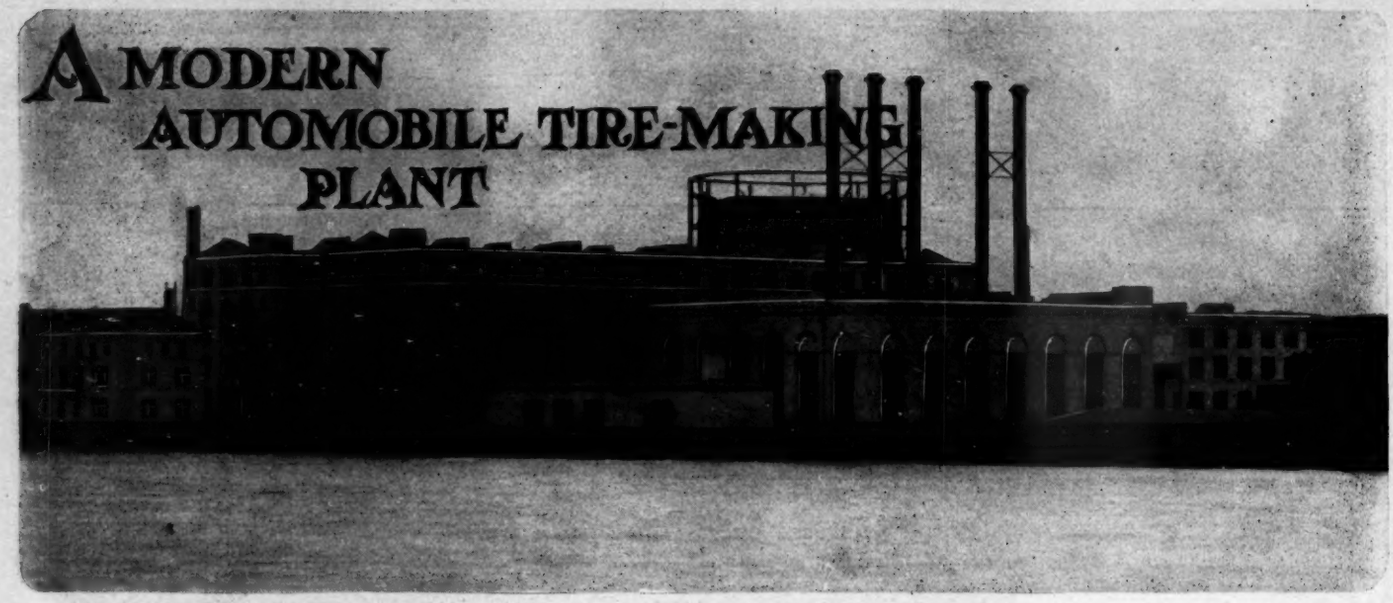
Those makers who had the courage to spend time and money in an effort to demonstrate America's ability in road racing are deserving of sympathy for their ill-luck and praise for their consideration of the welfare of their country's reputation. They ought to be encouraged not only by the public but by other makers engaging in like work.

There were unfortunate happenings connected with the race, it is true, but it must be remembered that the world has never before seen such a gathering at any event, much less anything in the sporting line. It is unfortunate that an international road race could not have the protection of federal troops, as is the case abroad. The federal government could and did assign the United States navy to protect the America cup racers—and why not troops to protect the people against their own acts of folly? It is probable the cup commission did all in its power to protect the people, but its task was huge. The wonder is more people were not killed, and if the records are searched it will be found the loss of life resulting from this event was proportionately insignificant. But it was made to appear immense by a motor-phobia press. Generally speaking, the race was well conducted. The timing was ragged and the guarding of the course inadequate, but these are all the criticisms the event deserves when all things are taken into consideration. America may never hold another race for the cup France has just won, but it should and will have something that will take its place in the field of motor car competition.

SOME OF NEW YORK'S SWELLDOM AT THE VANDERBILT CUP RACE

VANDERBILT CUP RACE IMPRESSIONS GAINED BY A MOTOR AGE ARTIST ON THE GROUND

A MODERN AUTOMOBILE TIRE-MAKING PLANT



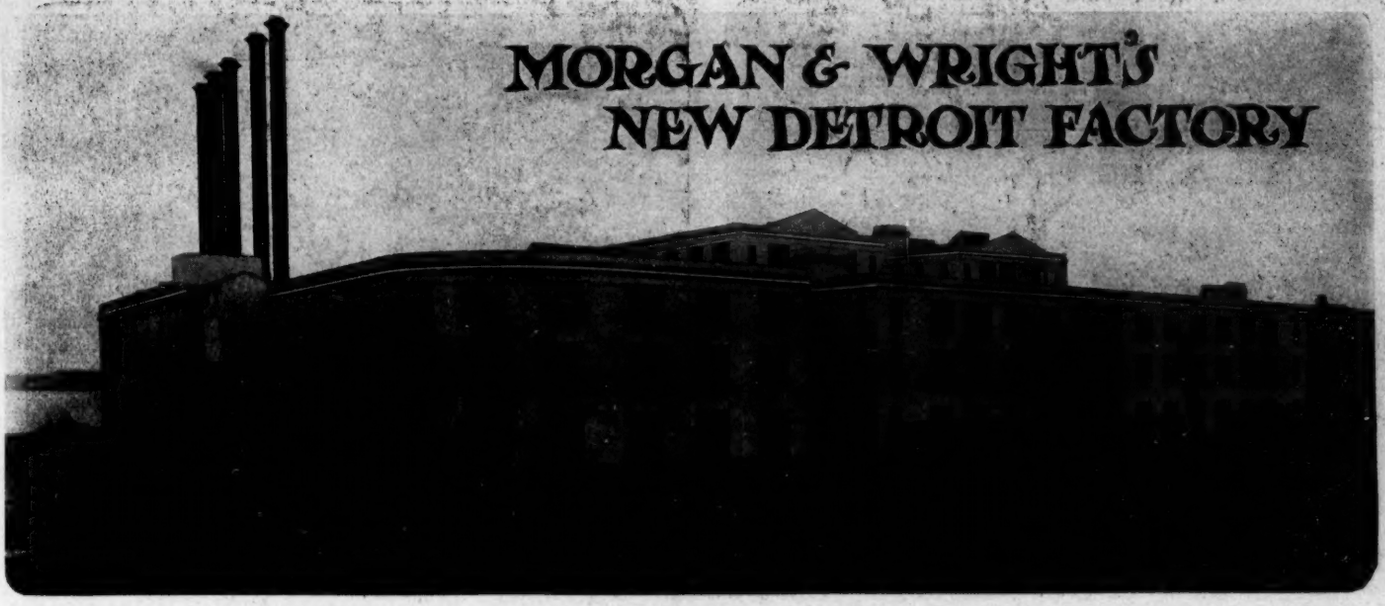
NEW MORGAN & WRIGHT FACTORY AS SEEN FROM BELLE ISLE BRIDGE

THE manufacturing department of Morgan & Wright, in Detroit, last Saturday turned over to the sales department the first samples of the firm's tire output from its new Detroit factory and an event of no small importance to the automobile world, as well as to the manufacturing interests of Detroit, took place. No ceremony marked the event. Nevertheless it was significant of the fact that one of the largest rubber goods manufacturing concerns in the United States and one of the largest single plants in the world had begun to place its goods on the market, from its new headquarters, in one of the finest factory buildings ever constructed. The immensity of the new plant of Morgan & Wright in Detroit needs actual inspection to be appreciated. Figures are but vain things, yet when one's mind grasps the fact that this plant, with all its machinery installed, will be turning out daily 500 automobile tires, 1,000 bicycle tire casings, 5,000 inner tubes, 10 tons of vehicle tires and similarly immense quantities of miscellaneous rubber goods, some idea may be gained of the tremendous capacity of the enormous plant. The firm began operating the plant with but a paltry 700 hands actually engaged in manufacturing its output. Almost as many are, however, engaged in the completion of its equipment. In the machine shop where Morgan & Wright are making much of the machinery to be used in the factory, sixty men labor in extra shifts. In the carpenter shop there are 100 more. All over the factory are groups of men installing machinery and completing the general scheme. For nearly 2 years the brightest minds in the rubber business have been planning the details, and when these are all worked out an army of 3,000 employes will be provided places and their work laid out. And all this is the direct development of a business which began in a basement on Lake street, Chicago, in 1883, started by F. W. Morgan and Rufus Wright.

Morgan & Wright's Detroit plant is located on the bank of the Detroit river, directly across from the foot of the city's beautiful pleasure ground, Belle Isle. It is at the foot of Bellevue avenue and at the terminus of the Belt Line railway. Five stories high and of white brick, the buildings are equipped with just enough of the ornamental to relieve the usual monotony of similar structures. The first concrete construction for the foundations was laid in August, 1905. Six separate buildings compose the group devoted to manufacturing and subsidiary purposes. The seventh is designed for the exclusive use of the officers constituting the business administration. The two largest buildings run north and south and are located on the southwest portion of the site. They are placed side by side at right angles to the river and are 60 by 300 feet, five stories in height. The one to the west is known as the manufactured goods building and the one beside it as the mill building. Extending at a right angle to these buildings across the north ends of both is the warehouse, 60 by 250 feet and three stories in height. This structure is divided in halves. The half opposite the end of the manufactured goods building is used as a warehouse for the finished product and that opposite the end of the mill building is used as a warehouse for raw material. To the east of the mill building is located the power building. At the south of the power

EXPERT TIRE MAKERS AT WORK MAKING CASINGS

MORGAN & WRIGHT'S NEW DETROIT FACTORY



REAR VIEW OF THE MORGAN & WRIGHT FACTORY FROM THE JEFFERSON AVENUE SIDE

building is the rubber cement building and upon the north is located the machine shop and hard rubber department. The main office building stands between the manufactured goods building and the river. Each building is located at a sufficient distance from its neighbor to permit a plentiful supply of light to enter through the many large windows. Large, quick-operating freight elevators have been installed at frequent intervals along the walls of the buildings devoted to manufacturing. A narrow-gauge track for factory cars has been laid wherever traffic of a heavy nature occurs between different buildings and different parts of the same floor.

Excepting only the general office building and the cement building, however, the plants are all under practically one roof, as frequent enclosed passageways connect all the factory buildings proper. The slow-burning type of construction has been employed throughout and automatic fire extinguishing apparatus of the latest design is always apparent. The power, steam, electricity and compressed air is generated in the same building, where a battery of ten vertical, water-tube boilers do their work without sign of stoker or fireman, all the fuel being inserted from a floor above. The stoking, as well as the removal of ashes, is all done by machinery. The arrangement of the various departments of the factory has been the result of long thought and planning. Morgan & Wright's veteran employes have worked them out.

PART OF THE BATTERY OF FIFTY TIRE PRESSES

"Plan the ideal conditions under which you want to get out the goods," were their instructions, nor was expense any object in the completed whole. From the raw rubber, as it comes from the South American plantations to the finished automobile tire, ready for the car, the whole process takes place under the Morgan & Wright roof. In a long row of great caldrons the pitchy sap is first thrown to simmer. Big mangles then tear it to pieces and wash it out. Mixed with the various preparations which are a rigid secret in every factory, it is then dried, ironed out into great sheets and cut into the various sizes required. For inner tubes these sheets are rolled around heavy iron bars and cemented. Compressed air blows them off the bars, the ends are also cemented and the whole vulcanized. A recent improvement installed at the Morgan & Wright factory is a coil for use in shaping the inner tubes for automobiles. This allows the tube to dry in exactly the shape it will occupy when complete. It is in the manufacture of casings, however, that the fine art of tire making comes into play in this big plant.

"Tiremakers," says Superintendent Templeton, of the Morgan & Wright factory, "are born, not made," and the tiremakers already at work in the factory have been recruited not only from the veteran employes of the firm but from practically every tire factory in the United States. Over a heavy metal mold, supported in front of him on a jig, the tiremaker goes to work. Alternately he cements the sea-island fabric and the rubber according to the order which has been found most effective in the pursuit of durability and resiliency. As the finished casings come from the presses, of which there are fifty on one floor, they are suspended on the arms of a long rack which

INNER TUBES FOR LIGHT TIRES READY TO VULCANIZE

INNER TUBES READY TO HAVE ENDS JOINED

moves as on a railroad straight into the mouth of the vulcanizing oven. All day long these racks are moving toward, into and away from the ovens. The whole plan is an overhead railroad, and when the casing emerges it is ready for the finishing touches and the market.

Great stock rooms are provided for all departments, with racks and lockers for keeping the tires in shape until delivery. Nothing but the finest grades of rubber and fabric enter into the composition of automobile tires, according to the testimony of the experts. Anything less would fail to stand the terrific strain and friction. While the Morgan & Wright factory employs a great deal of labor that can be secured from men already in Detroit, the concern has brought with it to Detroit many hundreds of men from outside the city and real estate within convenient reaching distance of the factory has shown a marked boom as a result of the newcomers' search for homes. Most of the departments are under the management of former Chicago men. G. A. Burnham is factory manager; A. A. Templeton, superintendent; William McMahon, assistant superintendent; G. A. Reeves, general foreman mechanical departments; T. H. Henderson, general foreman mill, calender and compound departments; William Shearer, master mechanic, and F. O. Smith, purchasing agent. The firm is itself one of the seventeen plants of the Rubber Goods Mfg. Co., of which Charles H. Dale is president. Charles J. Butler is president of the Detroit company. He bears the distinction of being the man who made operative the Tillinghast patents. The directors of the company are Charles H. Dale, Lester Leland, John J. Watson, Jr., and C. A. Hunter, of New York, and Charles J. Butler, Arthur I. Philp and Frank W. Eddy, of Detroit. The officers are: Charles J. Butler, president and general manager; C. A. Hunter, vice-president; Arthur I. Philp, secretary; Nicholas R. Feltes, treasurer; John Carlson, assistant treasurer; Herbert Bowen, counsel. A. I. Philp is the manager of the sales end of the business for Morgan & Wright. The various commodities of the company are handled by departments, each in charge of a man especially qualified to handle the lines assigned him. The departments, together with the names of the men in charge, are as follows: Automobile tires—clincher, Dunlop and Bailey "won't slip" tread—Charles Measure; vehicle tires—solid, cushion and side-wire—H. L. McClaren; bicycle tires and accessories, M. E. Mason; horseshoe pads, rubber heels and tape, W. M. Gunlock; mechanical rubber goods, including rubber specialties, D. J. Norbury; hard rubber specialties, G. W. Seiberling.

The company maintains nine branches in its own name and under its immediate supervision. In addition to these, agency connections are maintained at Syracuse, Philadelphia, Kansas City, Denver, Los Angeles and Portland. Chicago and Detroit have downtown stores for the sale of automobile tires and accessories, the Detroit store being in charge of J. C. Clinton. George C. Hubbs is the advertising manager. John Williams has been the credit man for Morgan & Wright for the past 10 years. Mr. Williams was the first traveling salesman of the company back in 1884, at which time he was also head bookkeeper and correspondent. Both Mr. Morgan and Mr. Wright busied themselves in the manufacturing end of the business at that time and Mr. Williams was the chief—almost the only—business-creator. In the heyday of bicycling, 10 years later, he was the company's star salesman, and a recital of his experience during these days, when he found it necessary to cut customers' orders in halves or thirds and when orders for ten, twenty or thirty thousand tires were of common occurrence, would make decidedly interesting reading. The only other employe who approaches Mr. Williams in point of length of service is N. R. Feltes, the firm's treasurer. Mr. Feltes has been connected with the "money-bag" end of the business in various capacities for about 14 years. Morgan & Wright held to the old bicycle tire factory as long as their growing business would permit—the concern was, as a matter of fact, forced out of the old home in order to meet the demand for tires. The old buildings in Chicago were inadequate in every way, and, being located close to the heart of Chicago, there was no room for the expansion that was necessary, to say nothing of what might be expected from the ever-growing automobile business. And so, because of this increase in business and the prospect for other enlargements, Morgan & Wright left their old home and sought more advantageous quarters.

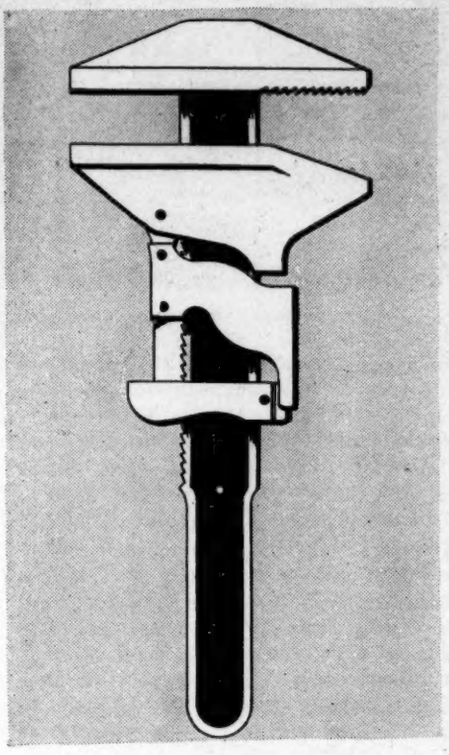
TEN BOILERS, WITH AUTOMATIC STOKING

CURRENT AUTOMOBILE PATENTS

Automatic Carbureter—No. 831,832, dated September 25; to H. E. Coffin, Detroit, Mich.—Two chambers of vertical cylindrical shape sit side by side, that at the right containing the float chamber and the other playing the role of mixing chamber. In the center of the mixing chamber and midway of its height is a vertical spraying nozzle and filling the mixing chamber surrounding it is a poppet valve held down against its seating by a conical coil spring. A small annular opening around the nozzle and between it and the valve permits a little air to pass the nozzle allowing of very slow motor speeds, but with higher speeds the poppet valve is brought into action. The throttle is a revolving drum filling or acting as a lining to the mixing chamber and has a circular opening in one side which registers with the horizontal opening to the admission pipes.

Automobile Sleigh—No. 831,820, dated September 25; to B. Beskow, San Francisco, Cal.—The automobile sleigh referred to in this patent has a couple of runners supporting the front end and a like pair carrying the rear, with provision for lateral movement of the forward ones to make steering possible. Propulsion is through a large wheel, like the driving wheels of a motor car, carried in the center of the sleigh body midway of the front and rear. This wheel has a special tire tread consisting of several oppositely-located, reversely-curved, sharp-engaging surfaces. The motor for driving the wheel is carried on a platform midway of the sleigh platform and beneath the driver's seat. In steering is an inclined column with hand wheel, the wheel carrying controlling mediums for the motor speed.

Combination Wrench—No. 831,855, dated September 25; to F. J. Holton and D. Holmgren, Brigham, Utah—This combined pipe and nut wrench has a fixed end jaw and a movable jaw, both jaws being double, so that at one side of the shank they serve for nuts of various sizes, as



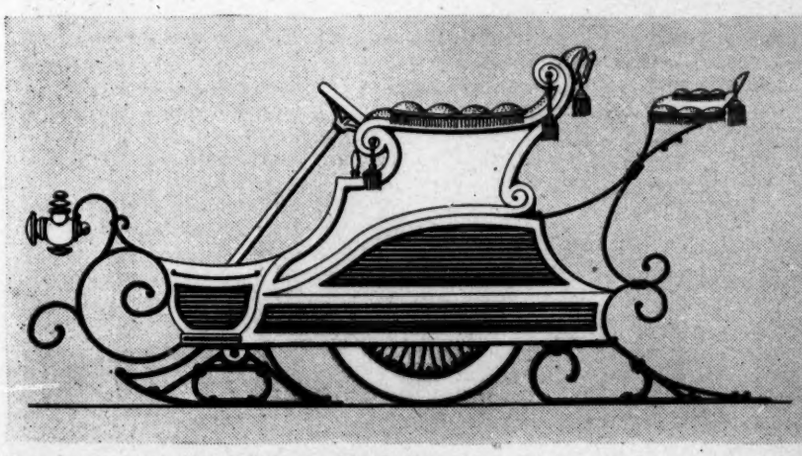
HOLTON'S COMBINATION WRENCH

does the ordinary monkey wrench, and at the other side they are given an alligator-mouth shape to adapt them for use solely on pipes. The half of the fixed jaw for pipe use has a serrated face and that of the movable jaw an inclined face. The method of adjusting the movable jaw is through a simple pressure stirrup. Sliding on the shank is a serrated member held to the shank by a stirrup; surrounding the latter and pivoted to the sliding member is the movable jaw and a pressure stirrup by which the jaws can be rigidly fixed in any position. The serrated sliding member and the serrations in the shank are held in mesh by springs, and to change the position of the jaw it is but necessary to press on the stirrup and then with the finger move the jaw to the needed position.

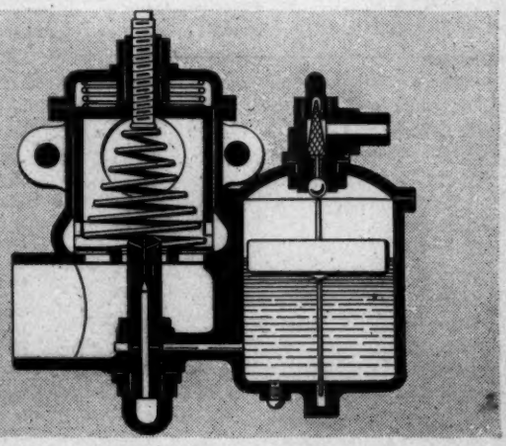
Spring Tire—No. 831,955, dated September 25; to F. E. Johnson and F. A. Snideman, South Haven, Mich.—On the rim carried on the ends of the spokes and forming the tire is a series of U-springs, turned on their sides, and one arm of the U attached to the rim and the other arm, made of double the length, forming the steel tire, the arms of the successive U's overlapping sufficiently to insure a continuous tire. Supporting the long arm of the U's is a series of spiral springs.

Detachable Rim Flange—No. 831,586, dated September 25; to F. W. Wilcox, Akron, O.—The rim has a permanent clincher flange on one side and a removable flange on the other. That side of the rim carrying the detachable or mobile flange has a continuous groove in which rests a tongue on the bottom of the continuous mobile flange. In the groove are notches and in the tongue dents, so that these assist in locking the flange in position.

Dunlop Carbureter—No. 831,547, dated September 25; to J. B. Dunlop, Sr. and Jr., Dublin, Ire.—The mixing chamber is a vertical, cylindrical tubing with an open air vent at the base and connections with the admission pipes at the top. To one side is a standard float chamber, the peculiarity of the device being the slanting feed passage from the float chamber into the mixing chamber. This feed pipe runs at an angle of 45 degrees and has in the fuel duct a rod partially filling the duct and resting on its lower surface. In the upper surface of this rod is a series of small serrations over which the fuel in feeding must pass, the intention being that these serrations sufficiently impede the passage of fuel at various speeds to insure a competent mixture. In the bottom of the mixing chamber, considerably beneath the spraying nozzle, is a deflecting vane intended to direct the air current slightly away from the nozzle.

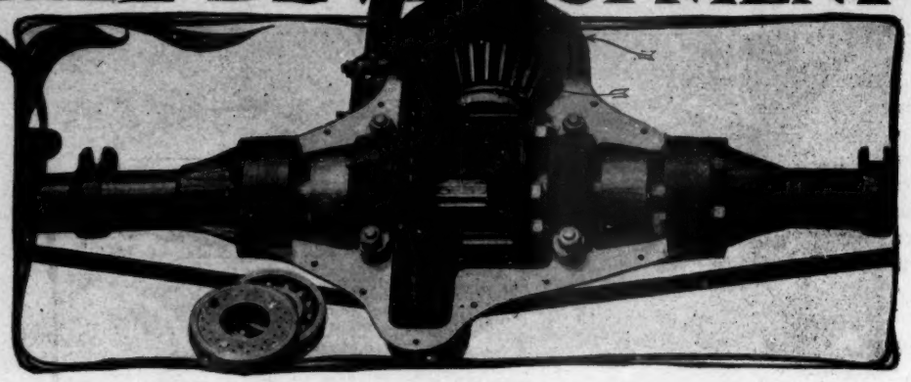


THE BESKOW ONE-WHEEL MOTOR CAR SLEIGH



COFFIN'S CARBURETER WITH POPPET VALVE SURROUNDING NOZZLE

AUTOMOBILE DEVELOPMENT

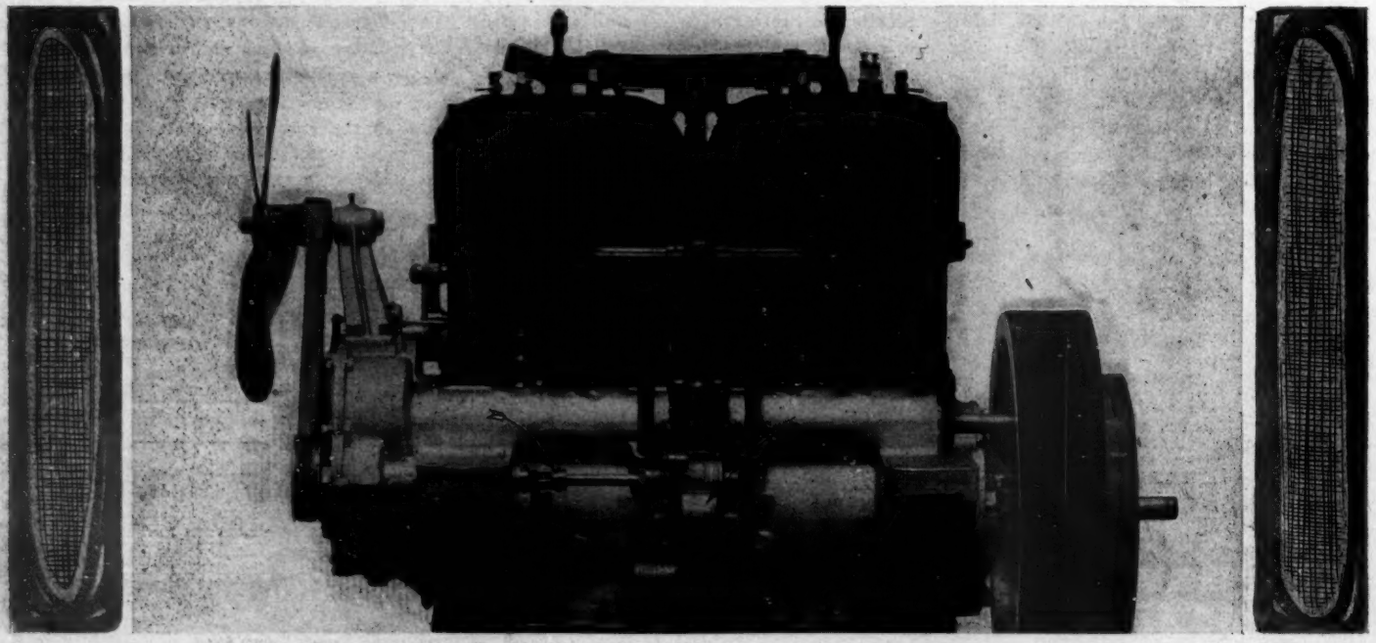


INTEGRAL BEARING CAPS RETAIN THE PINION SHAFT BEARINGS

HISTORIANS who would weigh accurately the events of the twentieth century can do so only by comparison with the trend of progress of the nineteenth: the roots of the present are always found in the past, and in analyzing the two 1907 Peerless motor car models, it is highly essential to view them with due regard to the two present 1906 styles that have been on the market for the past 10 months. For its next year's machines the Peerless Motor Car Co., Cleveland, O., has, besides increasing the quality of the metals used, added refinements in the way of more accurately manufactured vital parts. It has increased many of the measurements in keeping with present tendencies and has introduced new designs, some of which are entire innovations in American construction. Others, which, while they have decorated a few American machines for at least one season, have never come in for the lion's share of popularity. In shop and salesroom language the two models for 1907 are designated numbers 15 and 16, the former a 45-horsepower car resembling in many ways the present 45-horsepower machine, and the latter a 30-horsepower car intended to take the place of the present 30-horsepower vehicle. While the ratings in both of these models remain the same as in 1906 machines, it is a noteworthy fact that cylinder bore and stroke have undergone increases, the "30" now having a 4⅝-inch bore and 5½-inch stroke in place of 4½ and 5 inches as at present. The new rating is based on a crankshaft speed of 900 revolutions per minute. Naturally, attention will center on the number 16, or 30-horsepower machine, as it will be made in larger numbers. The following details apply directly to it, unless otherwise stated:

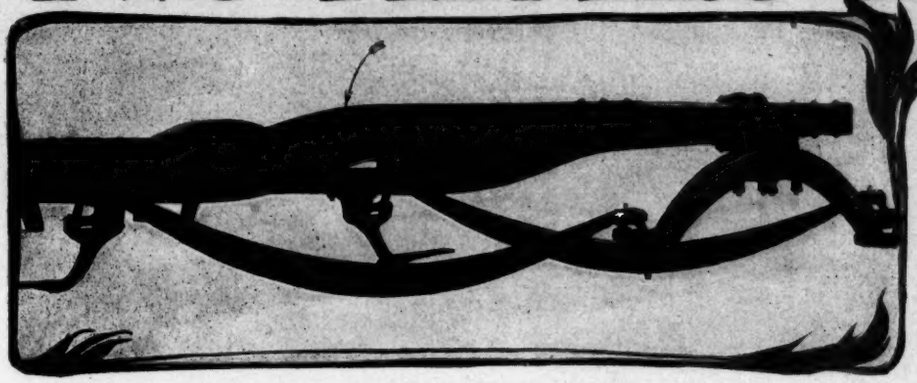
Charles Schmidt, the designer, has in his present four-cylinder motor an evolution of that used this season. Its cylinders are moulded in pairs with valves disposed oppositely and all parts, like heads and waterjackets, included in a single casting. Yet while to the eye these parts look almost identical with the present, such a difference as increased water space in the jackets of the valve ports exists. The crankcase, perhaps, is the most conspicuous innovation. It is a one-piece aluminum housing, with a large expansion on the forward end, for partly housing the half-time gears. In the ends are large, circular openings for receiving the end bearings of the crankshaft, the whole design being very different from the three-piece case of 1906. On the right and left sides the observer looks in vain for inspection holes through which to reach the crankshaft and connecting rods. Access to these parts is now through removable plates in the bottom of the case—one plate for the front cylinder pair and another for the rear pair. In defense of this apparent balk at accessibility comes the oft-heard reply that the present crankshaft requires practically not a single adjustment, and when such is needed the motor has to be dismounted to do the work properly. The plates in the crankcase base are fitted with deep recesses or grooves in which the dirt or sediment from the oil is deposited. By removing a plug from either end of the groove the sediment may be withdrawn.

An advance apparent in the mounting of the motor's several accompanying parts presents itself in carrying the commutator on a level with the cylinder heads at the right side and in the recess opposite the space between the cylinders. In this position its accessibility, compared with its low angular location at present, is seen. Now it can be reached as easily as the spark plugs in the caps above the intake valves. Don't stop here. The commutator drive is altered. The driving move-



PEERLESS CRANKCASE IS NOW A ONE-PIECE ALUMINUM CASTING, WITHOUT SIDE INSPECTION PLATES

TWO PEERLESS MODELS

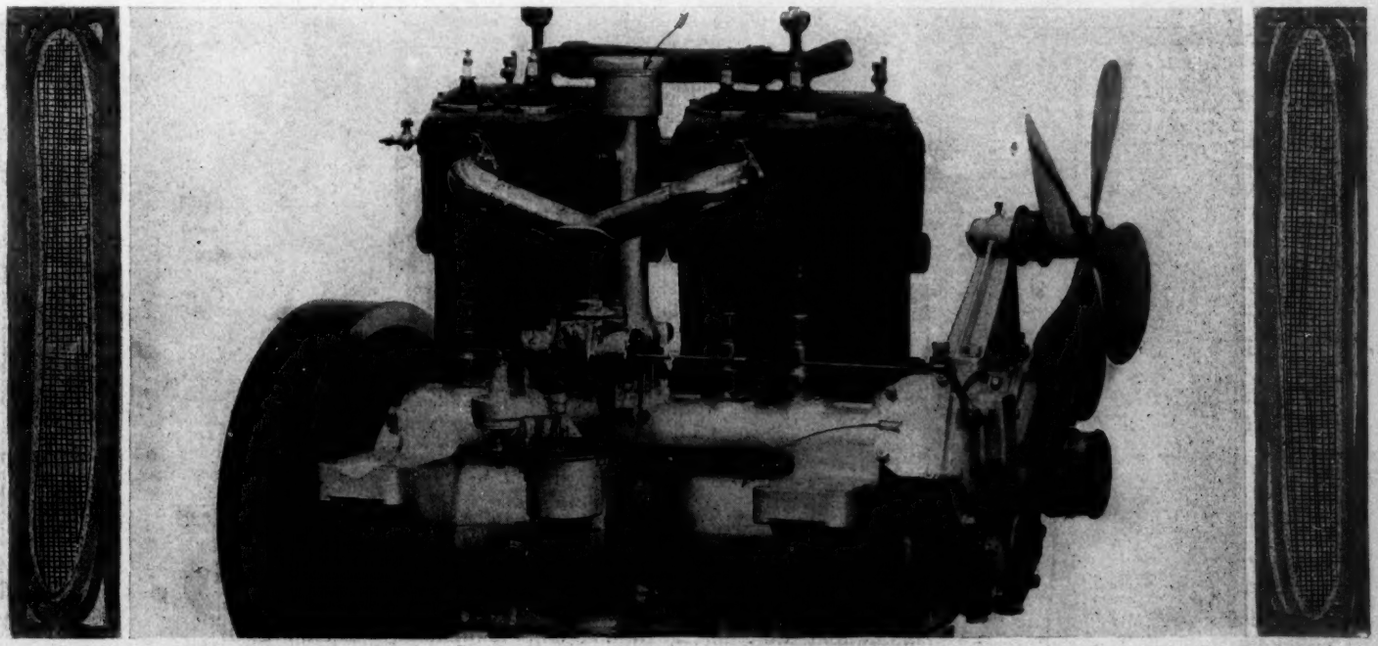


THE FRAME DROPS 4½ INCHES IN FRONT OF THE REAR AXLE

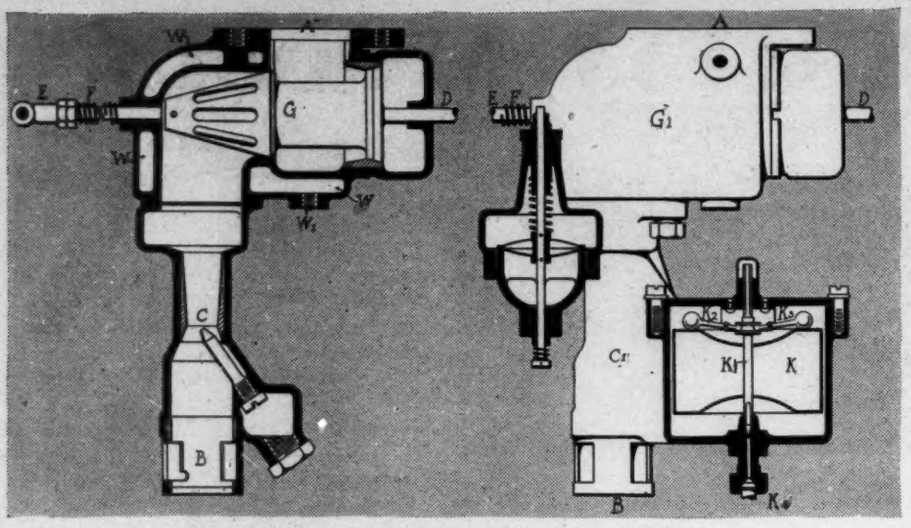
ment of the rotating brush comes directly from the center of the inlet camshaft through spiral gears, through which it is imparted to the vertical shaft within the shaft housing. This shaft is in reality two shafts. The lower one with the bevel gear on its lower end extends half way up to the commutator, where it ends, carrying on its end a coarse thread. Resting on top of it is another shaft with a similar coarse thread on its lower end and carrying the revolving brush of the commutator on its top. The two shafts are to each other as two lead pencils when placed end to end. These adjacent threaded ends work in a sleeve with an internal thread with which their threads mesh. In advancing or retarding the spark this sleeve is raised or lowered, and as it is raised or lowered the top shaft is advanced a fraction of a revolution ahead of the lower shaft or similarly retarded. In this way the commutator casing with its four wires remains stationary during all changes of ignition, the changes being accomplished by giving the top shaft with its rotating brush an advance over the lower half. The control of this is from the steering wheel.

In pursuing the study of the location of the motor parts, the carrying of the water pump on the left side, close to the side of the crankcase and midway between the cylinder pairs, is noticed. Its drive comes from a separate gear encased with the half-time gears and meshed with that on the exhaust camshaft. The shaft from the pump gear to the pump is furnished with a spring device, thus guarding against possible breaks and allowing it to be rapidly dismounted. The pump is new. This year a rotary pump of the centrifugal style ruled, but the new one, of Peerless make, is a gear design with two meshing bronze gears, carried on hardened steel shafts, which revolve on bearings of Parsons white metal supported in the bronze pump casing. The pump shares the left side of the motor alone, the carbureter, commutator and magneto, should the latter be used, occupying places on the right.

In those parts of the motor not visible from without workmanship in keeping with that already mentioned is manifest. The crankshaft revolving on three bearings carries on its rear end an integral flange 6 inches in diameter and ⅝-inch thick, to which the flywheel is bolted. A similar construction is adopted on the forward ends of the camshafts, having integral flanges to which the half-time gears are secured. Bearings for the crankshaft have a uniform diameter of 1¾ inches, with lengths as follows: Rear end, 4½ inches; center, 3½ inches, and front end, 3½ inches. Bushings for these are of Parsons white metal, a material also used for the camshafts. By using large bushings at the forward end of the shafts and smaller bushings in the intermediate and rear bearings it is easy to pull the shaft out forward when the radiator is removed. Both cylinders and pistons, made from imported castings, are subjected to careful construction. Cylinder walls are first bored, in which a depth of ¼-inch is taken off. Following this is a reaming process, which is, in turn, followed by a grinding with a carborondum eccentric wheel, in which 5/1000-inch is removed. As a final preparation, they are lapped with a special polishing preparation, during which process the piston with its rings is in place and the motor run by outside power. Pistons carry four eccentric rings, each with ground surfaces. The rings are ¼-inch deep and the pistons have five oil grooves. The rings are not pinned against rotation. The connecting rods, of I-beam forgings, have an eye-hole at the upper end for receiving the non-split bronze bushing for the hard-



THE RIGHT SIDE CARRIES CARBURETER AND COMMUTATOR, LEAVING THE PUMP FOR THE LEFT SIDE

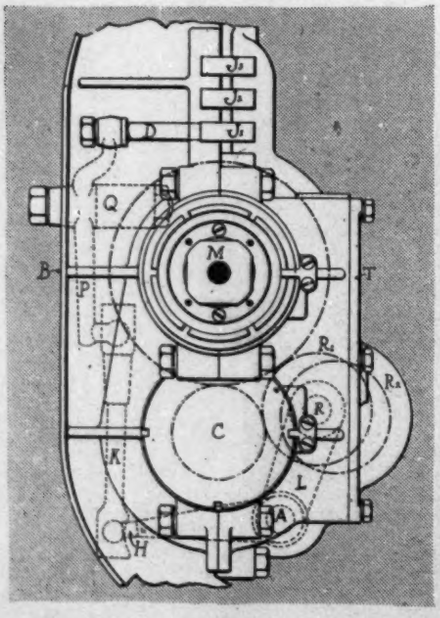


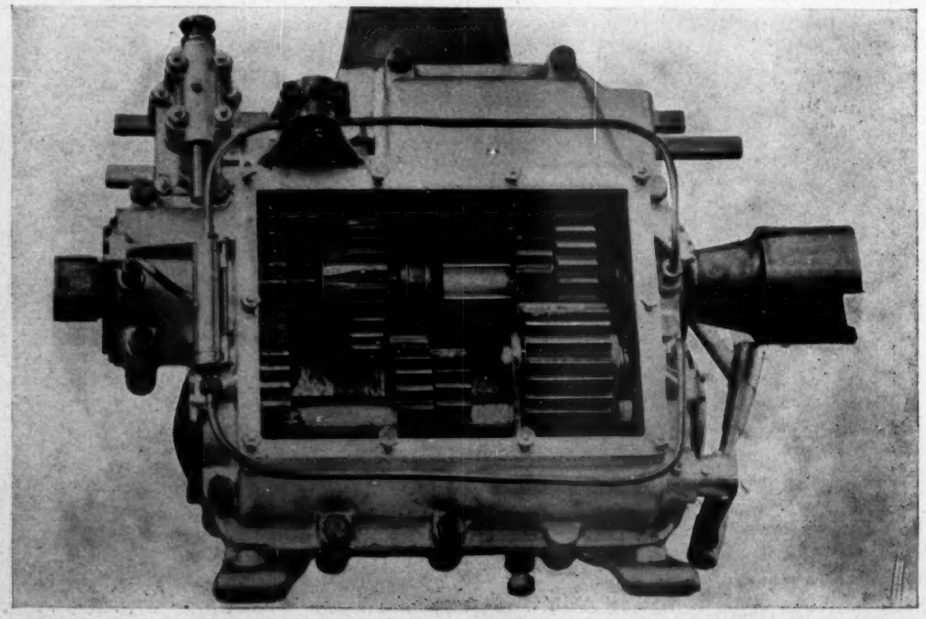
PEERLESS CARBURETER IN SECTION AND PART SECTION

ened nickel steel wristpin, and at their lower ends have split Parsons white metal bushings.

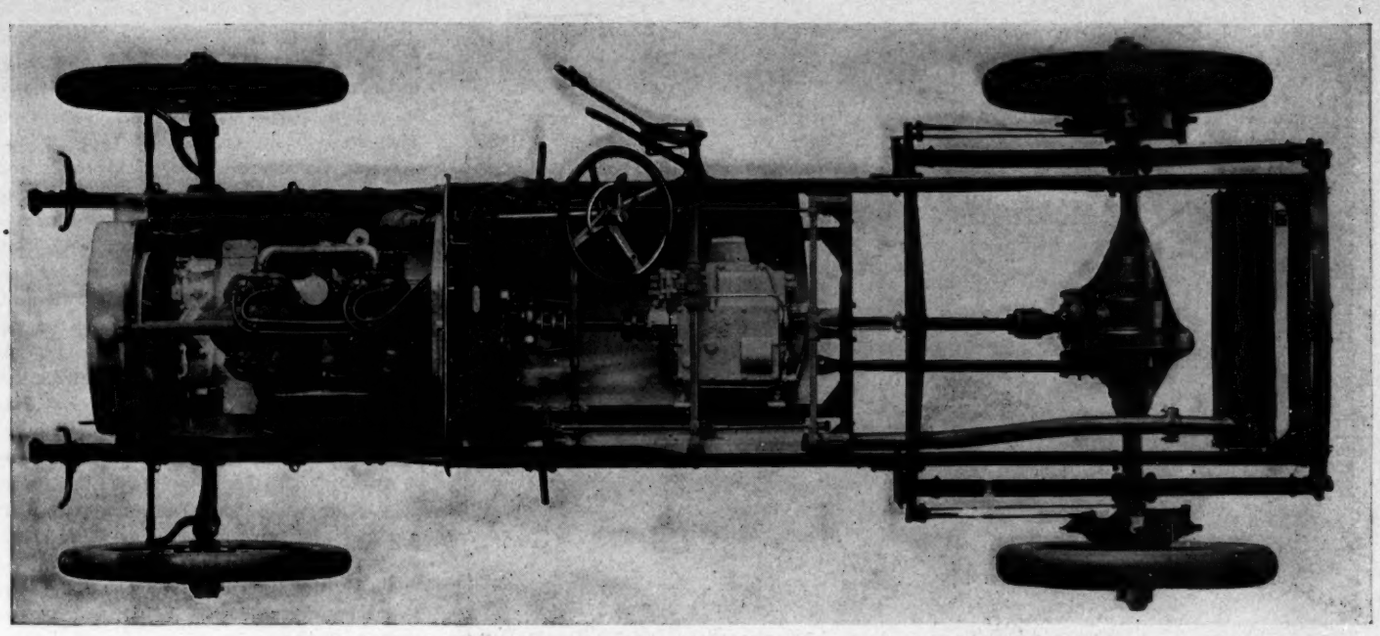
The quite irregular-shaped carbureter is shown in a double line illustration, that in the right half showing the float chamber K in section, the auxiliary air valve also in section and a side view of the throttle chamber G1, whereas in the left half is a sectional view of the carbureter, A marking the union with the admission pipes to the motor. B where the regular air supply enters, C the spraying nozzle, E connection with the finger lever on the steering wheel, D connections with the governor, G the throttle, WW water spaces around the mixing chamber and W1 the connection for a water pipe from the cylinder jackets. The general arrangement of the parts is seen also in the right view of the motor, the float chamber, auxiliary air valve with air entrance at its base and horizontal throttle chamber being especially conspicuous and the nozzle C and air entrance B are directly back of the stem of the float. The Peerless float chamber contains a float K carried loosely on the float stem K1 which has a pointed needle valve on its lower end for controlling the entrance of gasoline, the action of the float on the stem being through a pair of lever arms K2 pivoted on a projection from the top of the float chamber and with their inner ends acting in a collar on the float stem. The nozzle C is carried angularly in the center of a very small-diameter vertical chamber into the bottom of which the air enters through a regulable opening B. The throttle G is of the sliding barrel type with slots for allowing mixture to pass through. The governor on the half-time shaft acts through the rod D, the spring F on the opposite end of the throttle rod allowing of governor action without movement of the finger lever on the steering wheel, which lever can be used to give any desired speed above the throttle limit. The auxiliary air valve possesses nothing of merit beyond a vertical lift valve opened by the motor suction and closed by a variable tension coil spring surrounding its stem. The tension of the spring can be varied from the bottom of the valve stem.

Of the changes made in the flywheel clutch that of using a single coil spring S surrounding the continuation A2 of the crankshaft A is most noticeable, it doing the duty that a couple of smaller springs previously did of engaging the clutch. Remembering that the Peerless clutch is an expanding leather covered steel band R with leather covering R1 acting within the peripheral flange W1 of the flywheel W it is of first importance to follow how this expanding member is forced against the inner face of the flange W1. Both the vertical section and end view reveal this. The steel expander R is carried on a carrier C which is in turn supported on the short shaft B connecting with the gearset and finding a bearing on the tailshaft A2. One end of the expander R is seen attached rigidly to the carrier C by a stud at the top center in the end view and the loose end attaches to a hollow lug N made with an internal thread. Facing the lug N is another one N1 with an opposite internal thread and received in each lug N and N1 is a double threaded screw M seen in the vertical section. It is evident as we give this screw M a part revolution in one direction it will thrust the lugs N and N1 apart, pressing the expander R against the inner face of the flywheel flange W1 and giving it a part revolution in the opposite direction will contract the expander. This revolving is accomplished briefly as follows: The clutch pedal has connections through the yoke F with a collar on the sleeve E carried on the shaft B. A short arm H with ball ends has ball and socket union with the sleeve E at one end and an arm K at the other, and this arm K has an eyehole at its opposite end for spanning





HOW THE REVERSE GEAR IN PEERLESS CARS IS CLASHED INTO MESH INSTEAD OF BEING MESHED BY SLIDING, AS FORMERLY



THE EMERGENCY BRAKE EQUALIZER WORKS THROUGH SLOTS IN THE FRAME SIDE PIECES

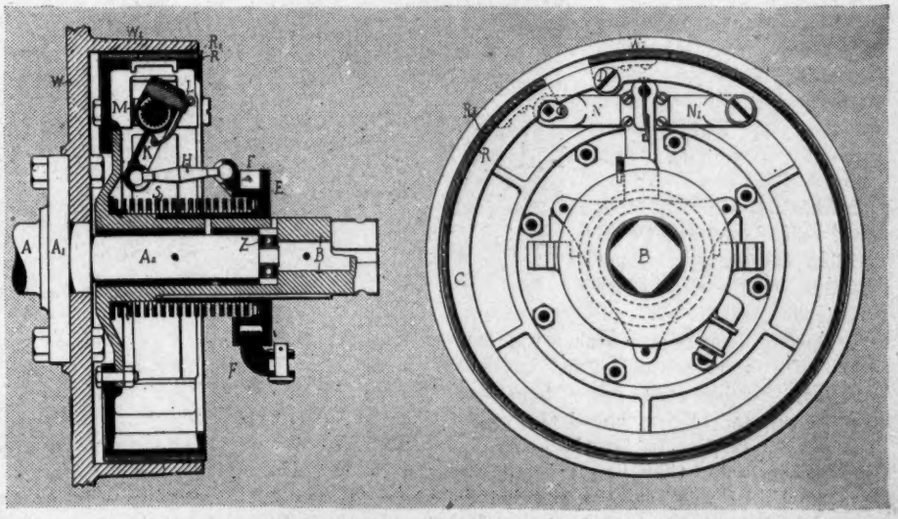
the screw M. A setscrew L carried in arm K is in mesh with screw M and through it the screw M is partly revolved, working the expansion. By varying the position of set screw L the amount of engagement can be varied.

Few changes have been made in the selective four-speed and reverse, gearset, other than that of clashing the reverse pinion into mesh instead of sliding it. This pinion shown in the lower left of the top view of the case is on a short shaft carried on a couple of arms, these arms being supported at their other ends on a shaft seen projecting from the lower left corner of the gearcase. The clashing of this gear is best illustrated in the line drawing showing an end view of part of the case, in which M is the main shaft of the case, C the countershaft and R the reverse pinion shaft, R1 representing the reverse gear in mesh with its countershaft gear and R2 showing it out of mesh. The reverse shaft R is carried on the lever arms L supported rigidly on the shaft A at their other end. Depending from A is an arm H which has ball and socket union with another arm K which in turn connects with shaft P pivoted on the stud Q. D is the shifting rod for the reverse. It can be seen that through the rod connections the reverse gear is clashed into mesh. In the top view of the case can be seen the new oiling system, in which oil tubes lead to all of the ball bearings carrying both shafts of the case. These leads give oil directly to the bearings, they getting pure oil instead of that from the splash within the case.

A touch of Europeanism, not before practiced in America, greets the eye when in following the lines of the side channels constituting the main frame it is seen that these side pieces are dropped 4½ inches directly in front of the back axle, thus carrying the motor and gearcase 4½ inches closer to the ground and still leaving enough room above the back axle for spring action without striking.

As last year, so this, a metal subframe of a couple of channel pieces supported on perforated dropped cross pieces carry the motor and gearset, the former through a couple of arms at each side and the latter on a three-point suspension scheme with one support point at the right side and two on the left. In contrast with this is the framework of the big 45-horsepower car which has relegated the subframe and uses also a three-point suspension for the motor as well as gearset, the motor having two rear supports and one trunnion support in the center at the front. This scheme is the same as used in the present "45" car. Gusset plates are freely used where cross pieces unite with the side channels. In springs a new metal, silico manganese steel, from the Lemoine factory in France, used throughout has the claim made for it of 50 per cent superiority over regular spring steel. Both the "30" and "45" use the same length of springs, 40-inch in front 48-inch in rear and 38½-inch for rear cross spring, but those in the larger car are regularly made ¼-inch wider. Each spring eyehole, where the shackling is done, carries a bronze bushing and the shackle bolt is of hardened steel and provisions for frequent oiling are made, all of which mean that the spring action is accentuated and its longevity increased.

In the rear axle, of the standard floating type, the introduction of nickel steel in the driveshafts in place of common high grade steel should not be forgotten, nor should the making of these shafts 1⅝-inch in diameter as well as increasing the diameter of the axle tube from 2 to 2½ inches external measurement. This axle, illustrated on the first page, has the drive shaft housing brazed into the cast steel differential housing, and in this housing don't overlook the making of the two bearing cap rings for the short pinion shaft, integral with the lower half of the differential housing. Both of these semi-circles are indicated by arrows.



VERTICAL SECTION AND END VIEW OF EXPANDING CLUTCH

The REALM of the

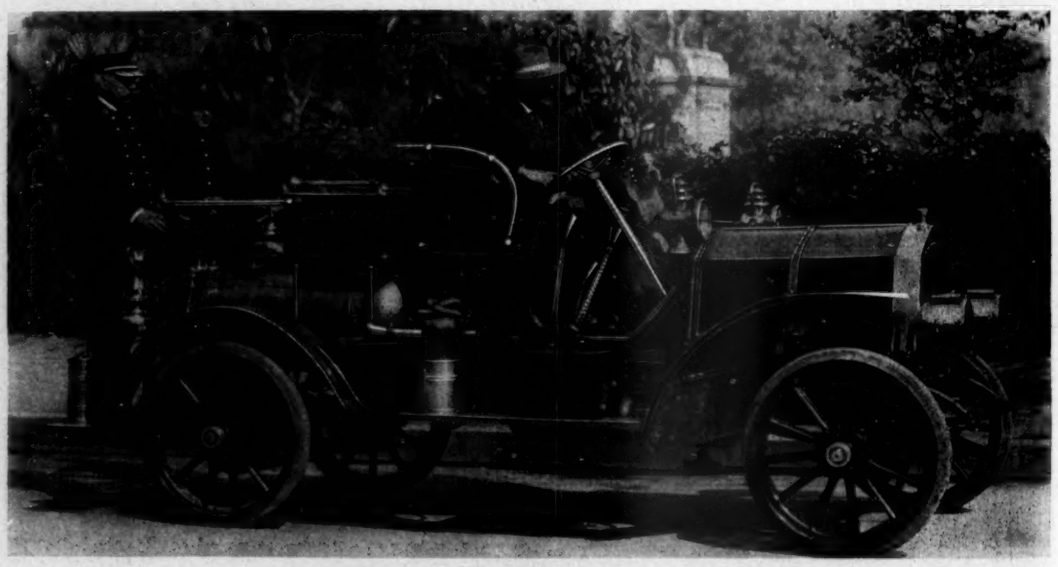
A 3-TON LOGAN TRUCK WITH RECORD LOAD

ALTHOUGH the American La-France Fire Engine Co., Elmira, N. Y., has been working on a chemical or first-aid fire wagon, propelled by a gasoline engine, for over a year, it is less than 6 months since the first one was placed on the market. This wagon is a Packard chassis of the 30-horsepower style, capable of a speed of 30 miles per hour and shod with solid tires, driving through double side chains. The wagon is now doing demonstration work in Boston, and so far it has been a pronounced success. Previous to the Boston demonstration its field of operation was in the immediate vicinity of Elmira, where it attracted attention because of its graceful lines and speed attained driving to fires. The changes required in converting a standard chassis to the needs of a chemical wagon consisted of a long platform back of the seats for receiving a couple of 35-gallon chemical tanks and additional room for the coils of hose and a few other fire-fighting requisites. Across the back of the platform is a broad step, on which stands Chief Mullen and one of his assistants, while Fire Commissioner Wells, also of the Boston department, shares the front seat with the driver. The LaFrance company realizes the great benefit of motor power in a chemical wagon. This wagon is first to fires and any motive power faster than horses is all that is needed. In this role the gasoline engine, on a motor car chassis, is enough. Besides using the chassis in this particular service it can also be used as a hose wagon. Experiments have proven so far that the gasoline engine is not well suited as the prime mover in a fire engine for pumping water, not so much because of any defects in its make-up, but because there is a little skepticism among fire fighters concerning it.

RULES FOR MOTOR BUSES

The new regulations which will control the issue of all licenses to be issued to English motor vehicles plying for hire inside the jurisdiction of the London police have been drafted, and from a preliminary précis which has been published it is evident that the authorities have convinced themselves that they have given quite as much latitude as the movement justified and are now going to insist upon a line of policy which cannot fail to make the London motor bus a proper vehicle for its purpose, and also, incidentally, help the motor bus designer to produce such a vehicle. Dealing with the motor bus, over forty distinct stipulations are laid down with which Scotland Yard will exact compliance before new vehicles will be licensed, and as soon as a certain number of these are running all the ones now running will either have to be altered to similarly comply or they will be withdrawn by compulsion of the police. A number of the regulations deal with purely technical matters connected with police regulations governing the capacity of the vehicles and the provision made for exits, entrances, etc. Then vibration and noise are provided against. It is ordained that the machinery should be so constructed that no undue noise or vibration is caused, and the maintenance of the carriage in this condition will be strictly enforced. All parts subject to vibration must have locknuts or spring washers to prevent them working loose and causing a rattling noise. Effectual means have also to be provided to prevent the rattling of window frames and glass. Smell and smoke prevention is covered long past the present stage of tolerance, in that the lubrication of the engine or carburation of the working mixture must be so controlled that smoke is not projected with the exhaust or from any other part. This new condition calls for very careful driving at times. At present this is not an offense if shown to be "unavoidable"; that is, a question of constructural design.

The machinery must also be so constructed that oil from the bearings is not allowed to drop on the roadway. Brake power provisions show the influence of recent accidents. All carriages must be fitted with at least two independent



PACKARD 30-HORSEPOWER CHASSIS USED AS CHEMICAL FIRE WAGON

brakes, each of which must be capable of stopping and holding the omnibus under all conditions. The maintenance of the brakes in perfect order will at all times be insisted upon, and they will at any time be subject to inspection. For steep hill work omnibuses will be subject to a special test, and additional brakes may be required. Each car must be capable of being readily steered and able to turn a corner without unduly interfering with other traffic. The police commissioner reserves the right, even after a car has been passed, if it is found to be apt to skid unduly, to issue a notice on the proprietor not to use it, and may refuse to license it again until the defects have been remedied or a remedy attempted.

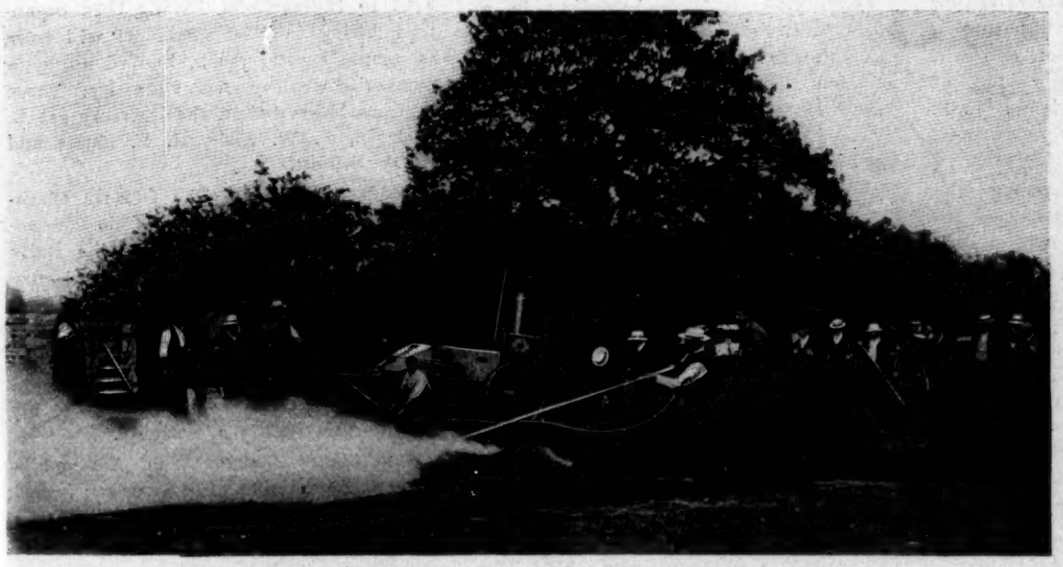
Buses will only be licensed to ply on certain specified routes and cannot be put on others unless by permission of the commissioner. Fire extinguishers of the chemical kind have to be carried. The lighting of the cars, upholstering, ventilation and general appearance of the vehicle are all dealt with in a spirit which shows that the motor bus proprietor will have to mind his p's and q's if he wants a quiet life.

The question of maintaining motor buses in this state of smartness and efficacy is greatly troubling motor bus officials. Unless the new designs are immediately better and more reliable than the old ones they cannot be run on present fares at a profit, and higher rates will not be possible so long as the horse buses are in competition. This is expected to practically involve a 3-years' struggle, and if the cost of gasoline goes up, as is predicted, even the decreased cost of repairs will be swallowed up on the rise in the fuel bill. One of the East Indian gasoline distilling concerns has announced the advent on the market of a heavier Borneo spirit at a cost of 3 cents below the market price of the ordinary 70 degrees spirit, and it is expected that all the others in the combine will follow suit if the offer is accepted by the public. The new fuel requires a greater heat to atomize and 25 per cent more air to the carbureter, but is very easily handled.

BOSTON'S SUCCESSFUL MOTOR MAIL WAGON

MOTOR A FIRE FIGHTER

A novel use of a gasoline motor is that of operating a water pump for extinguishing grass fires, as shown in one of the illustrations on these pages. The motor in use is the Ivel agricultural motor, a product of the Ivel Agricultural Motors, 45 Great Marlborough street, London, Eng., and to which reference was made in these pages 3 weeks ago. The motor is of small size, and is intended for plowing, seeding, threshing or any of the manifold farm duties, but in this case appears as a stationary motor, with a flywheel on the left end of the crankshaft driving the pump. The motor weighs but 2,800 pounds and is easily maneuvered.

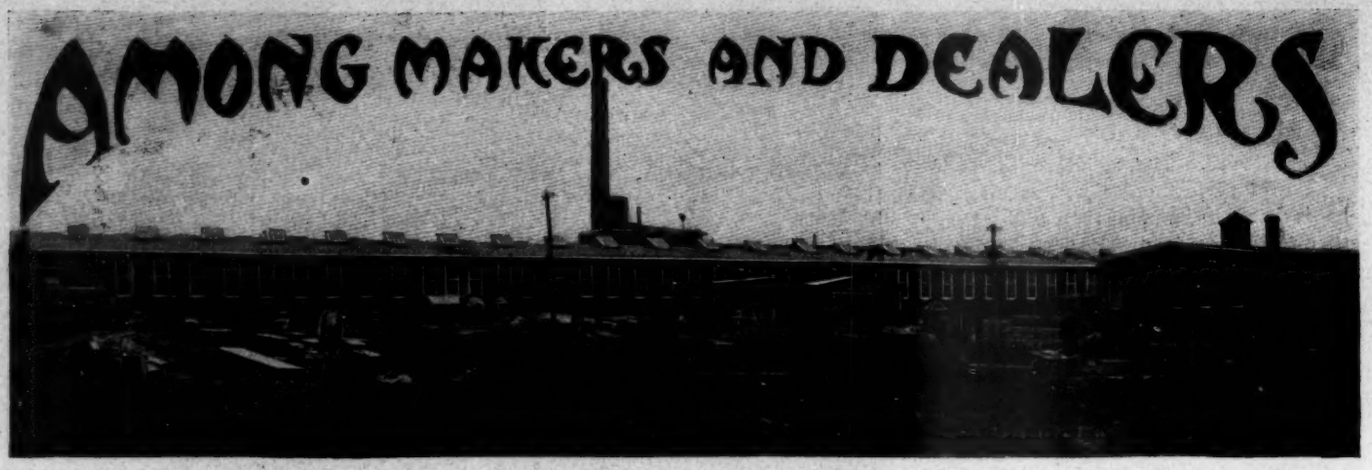


IVEL MOTOR DRIVING WATER PUMP FOR FIRE FIGHTING

MOTOR MAIL IN BOSTON

The postoffice department of Baltimore, Md., has installed in the department service for the collection of mail, two Columbia 18-horsepower gasoline motor cars. Each car carries an extra tire, lamp-lighting tank, complete set of tools, extra spark plugs, and other minor accessories. The drivers of the vehicles are robed in tan leather coats with caps to match. The vehicles are painted maroon with cream-colored panels striped with gold. A screen cage is located on the right-hand side of the front seat—the cars are driven from the left side—and contains a pouch for packages. Inside the body are suspended two open-mouthed sacks, each having a capacity of 100 pounds. A third sack is carried on the floor until one of the others becomes filled, when it replaces it. The full sack is then placed on the running board beside the driver. The sacks measure 21 by 23 inches and 32 inches deep. The cars have exceeded thus far the expectations of the postoffice officials and have covered the rounds of collection in less than half the time required under former conditions. One car made the round in 32 minutes and the other in 34 minutes, both operating in the crowded business section where the boxes are more or less congested. It is probable that more cars of the same type will be installed.

AMONG MAKERS AND DEALERS



IN THE FOREGROUND IS THE FOUNDATION OF THE PAINTING AND SHIPPING BUILDING OF THE MITCHELL MOTOR CAR CO., RACINE, WIS.

Iroquois in the Hub—Bond Brothers, of the Motor Mart, of Boston, have become agents for the Iroquois car.

Lowe an Aerocar Man—G. E. Lowe, late of the Boston Wayne agency, has been appointed agent for the Aerocar.

Opens G & J Tire Depot—The Philadelphia agency for the distribution of G & J tires in eastern Pennsylvania and southern New Jersey has been opened at 711 North Broad street, under the management of Berrodin & Levy.

Handles Haynes—An agency for the sale of Haynes cars will be opened in Philadelphia on or about October 15. H. Hunter, formerly with the Maxwell concern, has been appointed as manager and quarters are now being prepared at 220 North Broad street.

New Factory at Streator—The Streator Motor Co. has broken ground for its new plant at Streator, Ill. It will put up a brick building, 52 by 100 feet, and will build the Halladay. George Barton, of Chicago, will manage the business. L. P. Halladay, after whom the car was named, was formerly a bicycle manufacturer.

Eight-Cylinder Marmon—Among the models that Nordyke & Marmon, of Indianapolis, will place on the market during the 1907 season will be an eight-cylinder touring car. Like all of the Marmon cars, it will be air-cooled, despite a number of rumors that have been circulated recently to the effect that the company might experiment with a water-cooled motor during the coming season. The big car will be built along the general lines of the Marmon of this and preceding seasons, although there will be a number of new features. The cylinders will be 5-inch bore by 4¼-inch stroke and will be set four on a side, at an angle of about 90 degrees. A cast aluminum body will be used. The car will seat seven passengers, all facing forward, and the wheelbase will exceed 120 inches. There will be a change from the style of hood used on the Marmon heretofore, the change being made necessary by the increased size of the engine. The first of the big cars will be completed shortly. The company expects to manufacture about 300 machines next season.

Mora in His Line—The Kelsey Motor Car Co., of Philadelphia, William P. David, manager, has acquired the local agency for the Mora roadster.

Represents Motsinger—Charles S. Slaker, formerly with the International Harvester Co., has been appointed Chicago representative for the Motsinger auto-sparker, vice P. J. Dasey, transferred to New York as the company's eastern representative.

Grossman's Plans—Now that Emil Grossman has severed his connection with the Continental Caoutchouc Co. he will devote his entire time to the Motor Car Equipment Co., the National Sales Corporation and the Royal Battery Co. He is president of each of these concerns.

Pennington Again?—According to reports E. J. Pennington, of inventing and promoting fame, is interested in a new corporation known as the Michigan Compound Motor and Electric Co., which is reported to be planning the erection of large buildings for manufacturing purposes in Lansing, Mich. Within a decade or so similar reports about Pennington have been circulated and he has been heard from in many parts of the country in motor-building enterprises, none of which has, however, materialized to any extent.

New Power Idea—Some 175 firms will exhibit at the Berlin autumn show this year. The Hanover Railway Co. will show a steam motor car for standard gauge track, and another house is exhibiting an automobile train for light railways. Siemens & Halske are exhibiting a gasoline-electric train of cars, of which the feature is that it mounts steep hills in a novel fashion. The first van is the one with the gasoline-electric group, and it mounts first, unrolling an electric cable meanwhile. Arriving at the top of the hill it sends current down the wire to the second car, which mounts and in its turn unrolls a cable down which current is sent to the third car, etc., according to the number of cars in the convoy. The necessity of employing a very large-powered group on the first car is thus avoided. Siemens & Halske hope to interest the military authorities in their system.

Tradesman Married—Irving J. Morse, manager of the Philadelphia Locomobile branch, was married in Buffalo last Tuesday night to Miss Frances E. Browning, of the latter city. The honeymoon will be spent in the Pennsylvania mountains.

Franklin To Make Tops—The H. H. Franklin Mfg. Co. is fitting up a large space on the top floor of its main building where automobile tops will be manufactured. Mr. Franklin estimates that at least 70 per cent of the automobiles during the coming season will be equipped with tops.

New Hoosier Venture—The Capital Automobile Co. is the newest concern of its kind in Indianapolis, having been organized during the last week. It will have an ample capital stock, backed up by a number of wealthy men of the city. Those who are interested in the company are R. J. Irvin, F. W. Eisle, H. E. Emeis and Harry Seibert.

Geddes in Charge—The Olds in Cleveland will be handled by the Ohio Oldsmobile Co., which is backed by the Baily company, a large department and dry goods concern. The establishment will be operated by Fred Geddes. Ralph R. Owen, who for a number of years has been state agent for the Olds, will continue in charge of the wholesale trade and will make his headquarters with the company.

Hub Show Changes—The Automobile Dealers' Association of Boston has issued its prospectus for next year's automobile and power boat show. There is a noticeable change in the arrangements for the forthcoming exhibition which will give considerable satisfaction to many of the exhibitors, who felt that they were at a great disadvantage in having to show their pleasure vehicles in Symphony hall from lack of space in the Mechanics' building. The pleasure vehicles will be in the main building; the motor boats, their accessories and marine hardware in the basement, and

NEW MACHINE SHOP OF THE MITCHELL MOTOR CAR CO., OF RACINE, WIS.

the automobile accessories in the balconies. The commercial vehicles and their accessories will be placed by themselves in the Horticultural hall.

Factory in Pittsburg—The Atlas Automobile Co., of Pittsburg, is to go into the manufacture of gasoline motor cars at Ellsworth and College avenues. It will manufacture a runabout and a touring car for next year.

Adds Premier—The Gibson Automobile Co., of Indianapolis, has taken the Indiana agency for the 1907 line of Premier interchangeable water and air-cooled cars, and now carries, in addition to the Premier, the Ford, Wayne, Marmon and Reo.

Handles Peerless and Packard—The Peerless will be handled in Cleveland this year by the Standard Automobile Co., which has an immense five-story garage on Huron road. This year the company will handle nothing but the Peerless and the Packard, dropping several lines which it formerly handled.

Helfer Changes—W. T. Helfer, who has been manager of the Boston branch of the Diamond Rubber Co., has resigned, and will be succeeded by Joseph Bennett, of Philadelphia. Mr. Helfer has been appointed eastern representative of the Independent Tire & Rubber Co., of Akron, O. His territory will include New York and New England, and some of the middle Atlantic states. For the present he will have his office in Boston.

New Idea in Lamps—With the idea of getting away from the glare of acetylene headlights out on the road, K. H. Evans, 87 Sidwell street, Exeter, England, has brought out a device consisting of a series of thin horizontal plates placed in front of the gas jet and much on the same order as the angle signs seen in this country which read differently from both sides and the front. As described, the plates are so thin they take but little from the power of the lamp. The upper surface is black and the under side is bright, reflecting the light on the road. The plates are each 4½ inches wide and are ½-inch apart. The light is gradually eclipsed as one approaches the lamp, as the angle of vision is more acute. Close up, it is possible to look down on the upper surfaces which reflect no light.

Big Order for Carbureters—The Excelsior Supply Co., of Chicago, has placed an order with Wheeler & Schebler, of Indianapolis, for 5,000 of the 1907 Schebler carbureters. This concern will be exclusive agent and distributor for Schebler carbureters in Chicago and Cook county.

Henshaw a Haynes Man—C. S. Henshaw, of Boston, will be the New England representative of the Haynes Motor Car Co. for 1907. A building, now in course of construction at the corner of Newbury street and Massachusetts avenue, Boston, will be occupied by Henshaw with the Haynes car when completed.

Buys Big Plant—Samuel S. Eveland, on behalf of the Standard Roller Bearing Co., of which he is vice-president and general manager, has purchased for that company the entire plant and real estate of the Pennsylvania Iron Works Co., which adjoins its present property. By the purchase the Standard Roller Bearing Co. has secured five factory buildings with a total of over 110,000 square feet of floor space, with real estate 1,600 feet by 120 feet wide, all located on the main line of the Pennsylvania railroad and connected with the property which it now occupies, making the total length of all its property over ½ mile, with an average width of 200 feet, covering 500,000 square feet of floor surface. The cash price paid for the above property was nearly $250,000, and it will immediately be equipped with a full line of machinery at an expense of over $200,000. In addition to the above property, the Standard company is at present erecting a large reinforced concrete building, five stories in height, 100 by 210 feet. This building will be devoted exclusively to the manufacture of annular ball bearings, automobile axles, etc. Over 1,200 hands are now employed, and as soon as the concrete building is in full operation, which will be within 30 days, over 1,800 will be employed. When alterations are completed on the Pennsylvania Iron Works property, over 3,000 will be employed.

Pope Gives Up Boston Branch—The Pope Mfg. Co. has given up its Boston branch, and its Boston business will in the future be handled by an agency that will establish salesrooms in Boylston street.

New Aerocar Agent—Manager Lynch, of the Hump Motor Car Co., of 2534 North Broad street, Philadelphia, announces that his concern will hereafter represent the Aerocar in the quaker city and adjacent territory.

Changes the Name—The busiest automobile house in West Philadelphia, at 220 S. Fortieth street, formerly known as the Regent garage, has passed into the hands of Louis A. Passavant & Brother, who have rechristened the establishment the Western garage.

After Site in Pittsburg—Robert K. Armitage, of Meriden, Conn., is at the head of a syndicate which is considering the proposition of building an automobile factory in Pittsburg. If a site can be secured, it is understood that the factory will be built.

Mitchell Enlarges—Two additions, one measuring 130 by 270 feet and the other of practically the same size, are being added to the factory of the Mitchell Motor Car Co., Racine, Wis. The former, completed, is a one-story building to be devoted exclusively to machining purposes. The walls and floor are of cement, the former 1 foot thick. A feature is the many-gabled roofing, the seven roofs having the north exposures for lighting and the south shingles. In the cement floor are embedded wood sills to which the machinery is fastened. The roof is carried on steel columns filled with cement. The other building, shown in the first stages of construction, will be used as a paint shop and shipping room, its adaptability for the latter being due to its fronting on the railroad switch. The cement construction used in both has the advantage of quick erection as well as the employment of day labor.

FROM THE FOUR WINDS

Garage for a Name—Since the town of Barnes, Kas., has acquired some motor cars it is proposed to change its name to Garage.

Way to Tame a Horse—Now comes J. L. Porter, of Kansas City, with the very latest method of training horses to the sight and smell of motor cars. "Cheap, too," he adds. "Tell you what I did. I got a motor car and stabled it right with the horses until now a firm friendship is established between them."

Road Trip for Rhoades—Lewis T. Rhoades, of Philadelphia, is about to start from Evansville, Ind., in a Simplicity, made by the Evansville Automobile Co., and drive the car with the double disc balanced friction transmission to the Atlantic coast. It will be in the nature of a test trip, Mr. Rhoades intending to visit agents in Terre Haute, Indianapolis, Dayton, Columbus, Springfield, Pittsburg, Philadelphia, New York and Boston.

Motor as a Political Factor—Since Governor Warner started his campaign for re-election by running through Michigan in an automobile, the efficacy of the machine as a campaign factor has been satisfactorily demonstrated. "I believe that the farmers have gotten over their prejudice," says Governor Warner. "I was warned by many persons against campaigning in a motor car, but I have met with very few obstacles. The farmers realize that the automobile has come to stay and that, as Michigan is one of the largest automobile producing states in the union, this business aids in making the state prosperous. I think the automobile will eventually become one of the greatest factors in campaigns because it is so easy to get to the smaller towns away from the railroads with it."

Dodges Holdups—Harry S. Grece, Michigan manager for the automobile department of the White Sewing Machine Co., is now engaged on an exploratory trip in the northern part of the state, traversing a country in which automobiles have never yet penetrated. His route toward the wilderness led him through Grand Rapids and within 7 miles of that city he ran into a most unusual experience. At a deserted spot, just as night was falling, Grece saw two red lights appear suddenly in front of him in the road. The fact that they were in motion aroused his suspicions and, instead of stopping, he resolutely opened the throttle to its limit and charged. The lights faltered and, as the car bore down upon them, rapidly scampered out of the way. As Grece passed he and his party noted that the men who carried them were masked. It was undoubtedly a contemplated holdup, foiled only by Grece's nerve in throwing on power, instead of obeying the natural impulse to stop. There was no obstruction whatever in the way.

Toured 8,000 Miles in Europe—General and Mrs. C. M. Spitzer last week returned from a 4-months' sojourn in Europe, where they toured 8,000 miles on the continent in an automobile. The Spitzers, it will be remembered, were arrested some time ago by German officers for overstepping the speed ordinance of the village of St. George, near the boundary line between France and Germany, and which nearly became an international incident.

Novel Ruling—The Randall Motor Co., of Fort Wayne, has been enjoined from allowing any of its employes to enter its garage by way of the front door from 10 o'clock at night until 6 o'clock the next morning. Customers may, however, so the edict does not work so great a hardship. The case originated through a suit filed by an objector, who fought against a garage being erected in a partial residence district of the city.

German Taxation—In a letter to Motor Age, the German Imperial Automobile Club writes as follows regarding the taxation of foreign motor cars in the fatherland: "As a considerable amount of uncertainty exists abroad regarding the taxation of automobiles entering Germany and as to the term of duration of the tax-passes or permits which have to be taken out at the frontier customs stations, we take the liberty of forwarding the enclosed notice for your information." The enclosure says: "The automobile tax law which came in force on July 1 of the present year in Germany stipulates that permits must be taken out for automobiles of owners living abroad. The taxes to be paid are as follows: for a sojourn in Germany not exceeding 5 days $3, and for a sojourn lasting from 5 to 30 days, $8, for each automobile. These permits are issued on the payment of the dues at the German frontier custom houses. In regard to the duration of such permits erroneous views prevail abroad and we should especially like to point out that paragraph 110 of the law states that the 5 or 30 days for which the permits are valid need not necessarily be consecutive days. The permit, therefore, should be produced on every occasion that the frontier is crossed and laid before the customs officials to allow of the entry or departure from the country being exactly noted. Such notices should contain the marks of recognition of the automobile—letter and number—and the number of days passed in the country. Every day if only partially spent in the country is reckoned as a full day. It is not necessary that the frontier station at which the entry is made should always be the same one. Foreigners who are treated at the frontier customs stations in contradiction to the above regulations should always refer to paragraph 110 of the automobile tax regulations."

New Law in Force—Mayor Brand Whitlock, of Toledo, O., has issued orders to the police department of his city to enforce the recently enacted automobile law, and now the city is contemplating the purchase of two motor cycles for the cops to run down the violators of the speed law of the city.

Ford Road Commissioner—Although formal announcement has not yet been made, it is probable that Henry Ford, president of the Ford Motor Co., will be one of the three Wayne county road commissioners, who will be in charge of the expenditure of something over $300,000 on a county road, the fund and commission having been legalized at the recent election. Mr. Ford, while known chiefly through his connection with the automobile trade, is a farmer and owns several prosperous tracts of land, to which he drives almost daily throughout the year, superintending the operations of his men.

Engine Test—The National Motor Vehicle Co., of Indianapolis, is conducting an interesting test with one of its new six-cylinder engines, one of the first that has been built in the company's new engine department. An effort is being made to run the engine 10,000 miles without adjustment or repairs of any sort. One night last week the engine, fitted in a testing car, carried four police officers, a driver and five members of a farmers' posse over 25 miles of country roads through a blinding rain. The run was made in little more than 1 hour and the engine returned as good as it was when it started.

An Object Lesson—The Automobile Club of Syracuse gave the Onondaga county board of supervisors a chance to learn the value of highway improvement last week. Automobiles were furnished and the supervisors were taken over some of the new state roads. Starting in West Genesee street, the cars were driven westward over the smooth Genesee turnpike, which has been recently improved by the Solvay Process Co. The road over the turnpike to Onondaga valley gave the supervisors many a hard jolt, and they were able to form a good idea what state roads meant when they struck the Dorwin Springs road, the first road built in Onondaga from the state contract. This road was built in 1896 and is pronounced as perfect a highway as can be found anywhere. The automobile club saw to it that the supervisors were shown the difference between smooth and rough roads around Syracuse.

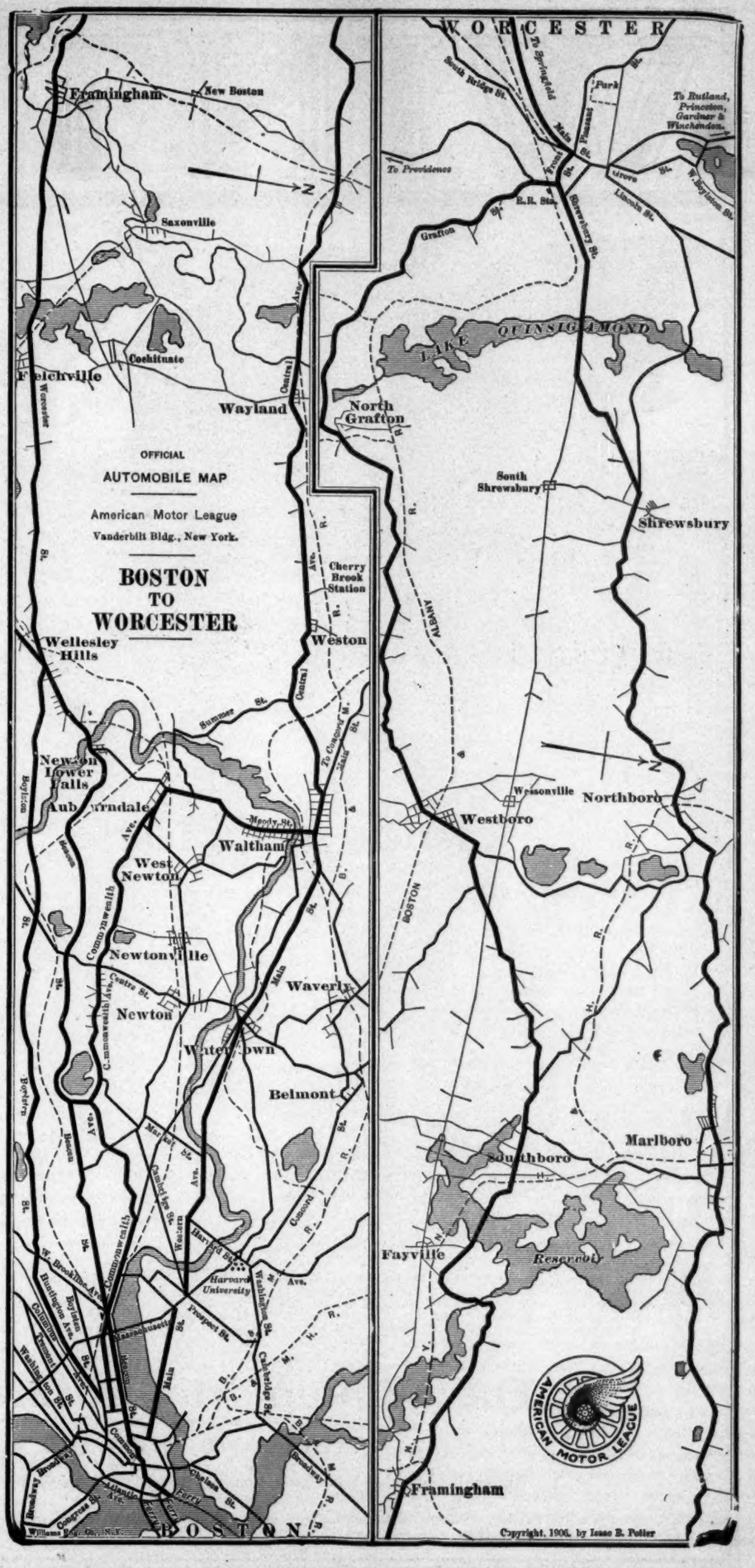
American Motor League

Official Bulletin

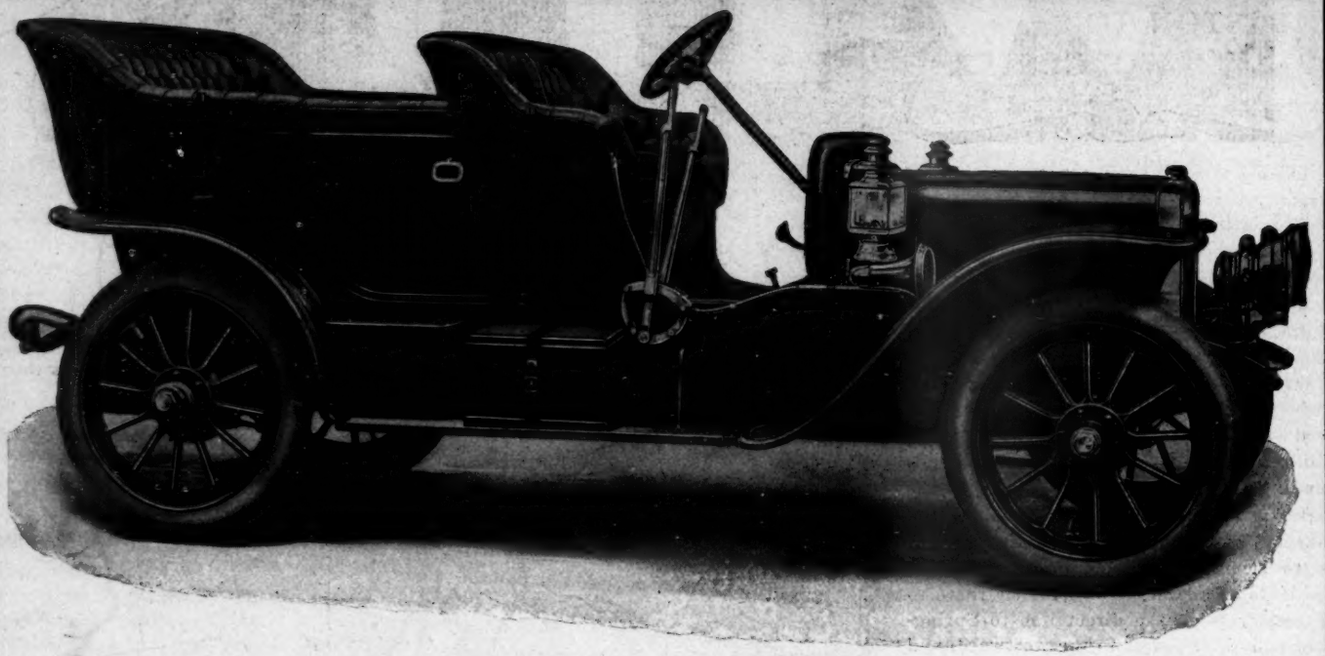
National Headquarters, Vanderbilt Building, New York

MAP OF ROUTES BOSTON TO WORCESTER

There are many good motor routes out of Boston, for the country surrounding the hub is attractive, the roads are, in the main, first class and good hotels and garages have multiplied to a gratifying extent within the last 3 years. The Boston motorist finds his way along the shore to Portsmouth, Portland, Brunswick and other coast points to the northeast or to Quincy, Nantasket, Plymouth, New Bedford or Newport in the opposite direction. Going inland there are fine macadam roads running for long stretches across the state, and these do much to gladden the journey of the through tourist as well as to stimulate automobiling among the residents of adjacent towns. The route to Worcester is on the direct line to Springfield and other points to the westward, and is part of the most popular through route from Boston to New York via Springfield, Hartford and New Haven. Two routes are shown on the map from Waltham westward, while from Boston to Waltham, Auburndale, Newton Lower Falls and Wellesley Hills four routes are shown—all much used. From Boston to Worcester the continuous journey may probably be best made by the northerly route through Waltham, Wayland, Marlboro, Northboro and Shrewsbury. By this route the distance is little less than 43 miles. The names of streets leading out of Boston are shown on the map and any of these may be taken. This map and all others will appear in the road books of the A. M. L. and a copy will be given free to each member. Meanwhile, for convenient use the official maps will be printed on substantial cards and ten cards will be sent free to each member of the organization. Lists of all maps will be printed from month to month so that members and others may know what maps are in hand for distribution. The A. M. L. invites to its ranks all automobilists of good character. There is no initiation fee; dues, $2 per year. If the reader is interested, or believes that an organization should be maintained in this country for the good of automobiling, his name and address will be gladly received at headquarters. Printed information concerning roads will be sent on request. Address American Motor League, Vanderbilt building, New York.



WINTON



Holds 90 Horse Power

The Winton Model M has a 40 H. P. motor.

The Multiple Disc Clutch on this car is ***tested*** to hold 90 H. P. at 1000 revolutions per minute.

That's more than ***twice the required strength.*** No slipping; no waste *of* power. A great advantage.

This clutch is the ***smallest in diameter*** in automobile construction.

Made so—to reduce inertia.

Inertia tends to hold a body at rest or in motion until an external force is applied. A fly wheel has lots *of* inertia: has to have it to help the motor.

The Ideal clutch, tho, should have ***no inertia at all.*** Can't eliminate all *of* it, but the Winton clutch reduces inertia to the limit.

That makes quick gear-changes possible. When a clutch is rotating rapidly and the operator tries to engage a new gear, broken teeth are likely to result. Not so with the Winton.

Having little inertia, the Winton Clutch, when disengaged, slows down immediately, and makes it possible to engage new gears at once. No broken teeth; no delay; gives absolute control *of* car Gets you out *of* close quarters while the other fellow is waiting for his clutch to slow down.

Other features of the Winton Model M are: Four-speed selective transmission. Direct drive on third speed. Offset cylinders; more power; no "knock." Clutch takes fourth speed from standstill without jar or shock. Offset cam shaft. Horizontal drive shaft. Perfect "Shooting" oiler. Improved Winton Twin springs. Four brakes, all on rear hubs. Ball and roller bearings properly distributed. Seats seven passengers. Price, $3,500 f. o. b. Cleveland. Book 3 describes it in detail. Book 4 tells about the new Winton Type X-I-V, five-passenger car, with Individual Clutch transmission. $2,500 f. o. b. Cleveland.

The Winton Motor Carriage Co.

Member A.L.A.M.

CLEVELAND, OHIO, U. S. A.

Winton branches in New York, London, Boston, Philadelphia, Pittsburg and Chicago.

In New York we shall exhibit at the Madison Square Garden Show *only*, January 12-19, 1907.